RECEIVED
MAR 5 -

SOAP

307.8
So12

MARCH
1936

UNGERER & CO
NEW YORK

SOAP
PERFUMES

OUR Perfume Laboratory is constantly working on new developments in perfume materials for soaps of all kinds—white or colored toilet soaps, liquid, laundry and cleansing soaps.

WE are offering a particularly fine line at $2.00 to $3.00 per pound in these odors:

Almond • Chypre
Eau de Cologne
Gardenia • Lavender
Geranium
Carnation • Jasmin

UNGERER & COMPANY
15 WEST 20th STREET
NEW YORK

SOAPS
INSECTICIDES
DISINFECTANTS
CHEMICAL SPECIALTIES
SANITARY SUPPLIES
POLISHES
CLEANERS

Our uniform strength PURE STEAM DISTILLED PINE OIL DISINFECTANTS are the first to feel Spring's call to extra cleaning. Coefficient range: 2 to 5.

A Mirage Can't Fool A Fuld "Thirty Sixer"

No wild jack can lead a Fuld "Thirty-Sixer" astray. A smart prospector! He knows where the real "pay-dirt" lies. And he's going to uncover it with the fastest moving line of Sanitary Chemicals UNDER HIS OWN LABEL, so that repeat sales come right to HIM. Join the Fuld "Thirty-Sixers"—there's plenty for all.

WHAT FULD MAKES for the LEADERS

LIQUID CLEANERS
- Pine Scrub Soap
- Liquid Scrubbing Compound
- Sassafras Scrub Soap
- Floor Bleach
- Rug Shampoo

INSECTICIDES
- Roach Powders
- Fly Sprays
- Cattle Sprays
- Pyrethrum Sprays
- Moth Spray
- Rat Exterminators
- Sprays for Special Purpose Concentrates

FLOOR WAXES and SEALS
- Self-Polishing Wax
- Liquid Wax
- Wood Seal
- Gym Seal
- Terrazzo Seal
- Wax-Var
- Paste Wax
- Dance Floor Wax

CONTAINERS
- Urinal Strainers
- Wall Containers
- Soap Dispensers

CLEANING COMPOUNDS
- Washing Compounds
- Window Cleaner
- Scouring Compounds
- Fabric Cleaners
- Weed Killers
- Waterless Cleaner
- Beer Coil Cleaner
- Paint & Varnish Remover
- Sterilizing Agents
- Tile Bleach

LIQUID DEODORANTS
- Chlorozif
- Forma Chloro Sprays
- Theatre Sprays
- Pine Deodorant
- Drip Machine Fluid

LIQUID and BASE SOAPS
- Liquid Hand Soaps (All percentages 10 to 40%)
- Shampoos
- Cocoanut Oil Base Soaps

OIL and SOFT SOAP
- All Percentage Oil Soaps
- Jelly Soaps

DISINFECTANTS
- Pine Oil
- Coal Tar (All Co-Efficients)
- Cresol Compounds
- Chlorine
- Powdered Chlorine

POLISHES
- Count 12 [illegible]
- Metal Polishes (Liquid, Paste & Powdered)
- Auto Polish
- Furniture Cream
- Furniture Polish
- Floor Oil
- Silver Pastes and Creams

PLUMBING SPECIALTIES
- Drain Pipe Cleaners
- Liquid & Powdered Bowl Cleaners
- Tile & Enamel Cleaners
- Boiler Compounds

DEODORANT BLOCKS and CRYSTALS
- Urinal Blocks
- Deodorant Blocks 2 to 40 oz. sizes
- Deodorant Crystals

FULD BROS.
BALTIMORE. MARYLAND

CHEMICALS for the RUBBER INDUSTRY
PLASTICIZERS and RESINS
CHEMICALS for the TANNING INDUSTRY
WETTING- CLEANING- SPREADING- PENETRATING- EMULSIFYING- AGENTS
HIBITITE and INHIBITED ACIDS
PHYSICAL PROPERTIES OF DIPHENYL
SANTOCHLOR
3 SIZES OF CRYSTALS
TO SUIT ALL REQUIREMENTS
MONSANTO CURRENT EVENTS
Monsanto INTERMEDIATES
Physical Properties of The AROCLORS
HOW MONSANTO SERVES
SANTOPHEN
SANTOSITE
Monsanto Chemicals
"Save Them"
SANTOCHLOR
HIBITITE and INHIBITED MURIATIC ACID
Use This Helpful Service Data
Monsanto Chemicals
COUMARIN MONSANTO
TRI SODIUM PHOSPHATE
SANTOCHLOR (Paradichlorbenzene)
PHENOL U.S.P.
CRESYLIC ACID
and many others
As part of its service, Monsanto offers literature describing the uses and specifications of many of its products. Thirty-five years of manufacturing experience is incorporated into this material. You are invited to ask for any data that might be applicable to your particular problems.
CHEMICALS OF QUALITY
Monsanto
ST. LOUIS, U.S.A.
Monsanto Chemical Company
ST. LOUIS, U.S.A.
R. C. A. Bldg., Rockefeller Center NEW YORK
Tribune Tower CHICAGO
Everett Station BOSTON
Brown Marx Building BIRMINGHAM
Johnston Building CHARLOTTE
Midland Building CLEVELAND
373 Brannan Street SAN FRANCISCO
378 St. Paul St., West MONTREAL
Victoria Station House LONDON

IT'S THE ODOR
THAT SELLS ME
SOAP
EVERY TIME!
DU PONT
REG. U.S. PAT. OFF.
AROMATICS
Quality Aromatics
to meet every need of the
Soap Manufacturer
E. I. DU PONT DE NEMOURS & CO., INC.
ORGANIC CHEMICALS DEPARTMENT
FINE CHEMICALS DIVISION
WILMINGTON, DELAWARE

SOAP

Volume XII
Number 3

March, 1936

SANITARY Products Section, which is included as a department of every issue of SOAP, begins on page 75. Production Section begins on page 63.

«

Contents

- Editorials 21
- Shaving Preparations 23
  By Dr. E. G. Thomssen
- How To Buy Soap 27
- Some Comments on Foreign Soap Packaging... 31
  By Ullman
- Some Soap Selling Is Different 33
- Catalysis in Soap Manufacture 63
  By Harold Silman
- Disinfectant Ignorance 92
  By Florence Wright
- Moth Sprays 95
- Evaluating Stock Sprays 101
- Insecticide Sales—Up or D... 107
- Contracts Awarded 45
- New Trademarks 47
- New Equipment 51
- New Patents 71
- Raw Material Markets 53
- Raw Material Prices 57
- Products and Processes 69
- Classified Advertising 123
- Advertisers' Index 132

Published monthly by

MAC NAIR-DORLAND COMPANY, INC.
254 WEST 31st STREET NEW YORK, N. Y.

Subscription rate, $3.00 per year. Foreign, including Canadian, $4.00. Copy closing dates—22nd of month preceding month of issue for reading matter and 10th of month preceding month of issue for display advertising. Entered as second-class matter, April 11, 1931, at Post Office, New York, under act of March 3, 1879. Mail circulation, February, 1936, issue 3,368 copies. Total distribution, 3,700.

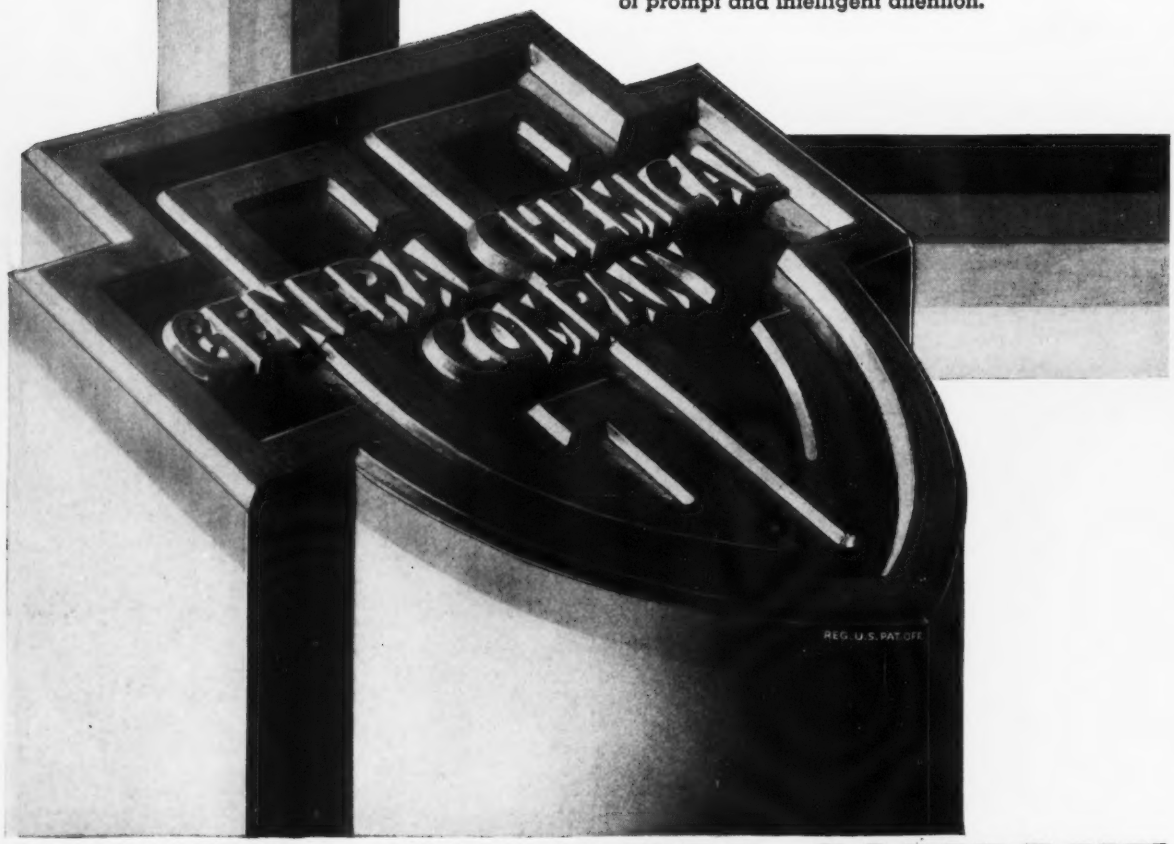
HEAVY CHEMICALS
OF STANDARD PURITY

Sodium Silicate

Clear and Opalescent—Standard Strengths

Also: **NITRE CAKE, SALT CAKE, BARIUM CARBONATE, TRISODIUM PHOSPHATE, SODIUM FLUORIDE, SODIUM SULPHITE, HEAVY ACIDS and INDUSTRIAL CHEMICALS**

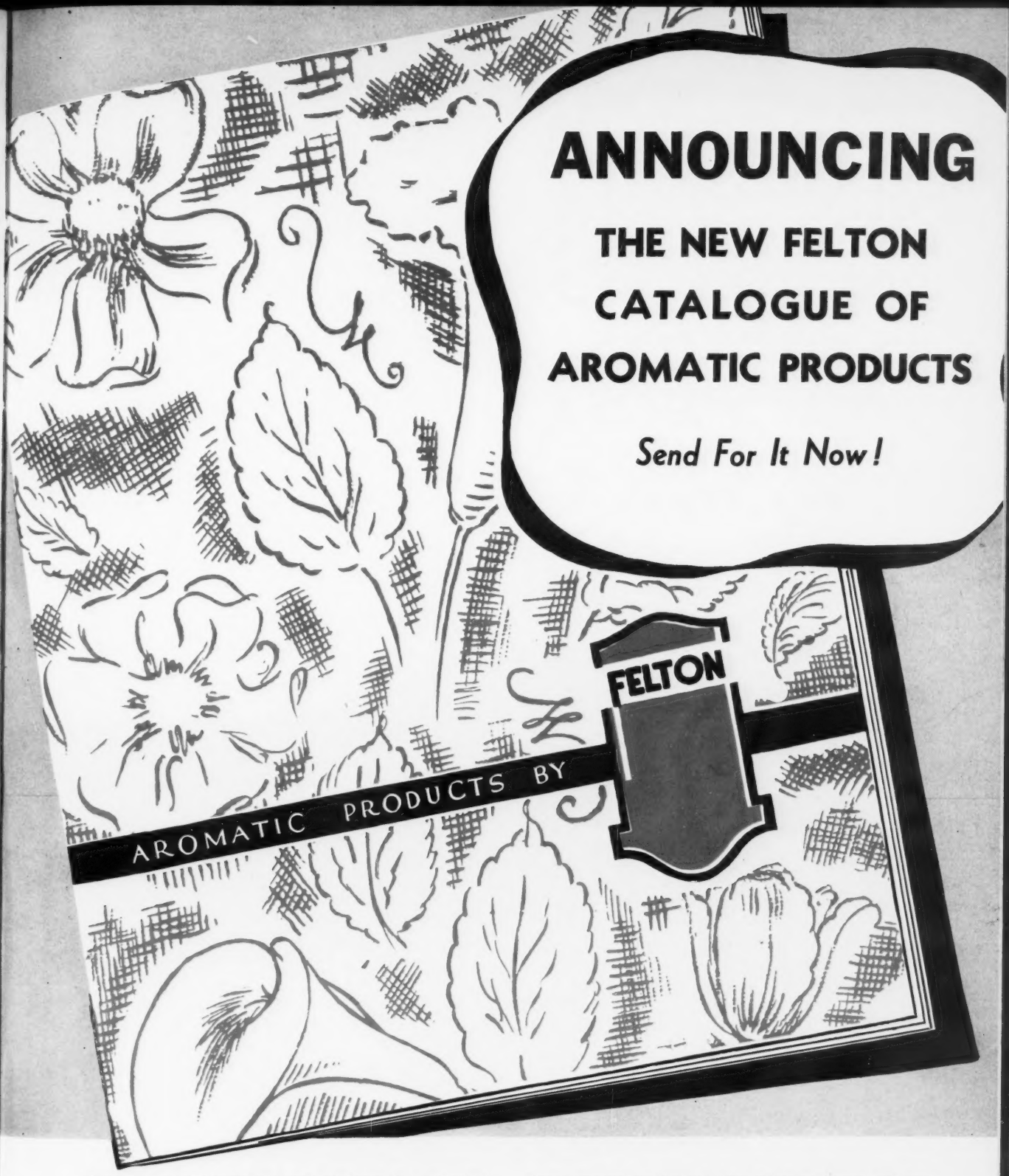
GENERAL CHEMICAL COMPANY manufacture plus nation-wide service makes this not only a logical, but an advantageous source of supply. The Company invites your inquiry which, in your interest as well as ours, should be addressed to the sales office nearest you. We assure you of prompt and intelligent attention.



GENERAL CHEMICAL COMPANY

Home Office: 40 RECTOR ST., NEW YORK (Cable Address: Lycurgus, N. Y.)

Sales Offices: ATLANTA, BALTIMORE, BOSTON, BUFFALO, CHARLOTTE, CHICAGO, CLEVELAND, DENVER, KANSAS CITY, LOS ANGELES, MINNEAPOLIS PHILADELPHIA, PITTSBURGH, PROVIDENCE, SAN FRANCISCO, ST. LOUIS. In Canada: THE NICHOLS CHEMICAL CO., LTD., MONTREAL, TORONTO



Felton Chemical Company's new catalogue is a practical reference book classifying aromatic products according to usage and price. Aromatic chemicals, perfume specialties and compounds, terpeneless oils, coloromes, aquaromes, technical odors and numerous other items of special interest to you are listed in it, in clear, concise manner. Perfumers, cosmetic manufacturers, soap makers and all those engaged in kindred lines using perfumes and aromatics should certainly have this valuable, new catalogue on hand for ready reference.

IF YOU HAVE NOT RECEIVED YOUR COPY WE WILL BE GLAD TO SEND IT IMMEDIATELY ON REQUEST!

FELTON CHEMICAL COMPANY

INCORPORATED

603 JOHNSON AVENUE, BROOKLYN, N. Y.

Manufacturers of AROMATIC CHEMICALS, NATURAL ISOLATES, PERFUME OILS, ARTIFICIAL FLOWER AND FLAVOR OILS

Stocks carried in principal cities:

Boston, Mass. 80 Boylston St
Philadelphia, Pa. 200 So. 12th St
Sandusky, Ohio 1408 W. Market St
Chicago, Ill. 1200 N. Ashland Ave
St. Louis, Mo. 245 Union Blvd
New Orleans, La. Balter Bldg
Los Angeles, Calif. 515 So. Fairfax Ave

FRAGRANT

. . . to the very last!

NO longer need manufacturers charge loss of sales to loss of fragrance, for now, through the addition of a small percentage of DUROFIX, F. B., the perfume characteristic of their product can be preserved to the very last.

DUROFIX, F.B., perfected by Fritzsche chemists to end the problem of perfume fixation in soaps of every kind, bath salts, etc., mixes readily with all essential oils and aromatic chemicals. It will not saponify or hydrolyze, nor will it disturb the product's odor complex or color. Soap chemists will recognize it as the ideal fixative—simple to use, low in cost, highly effective.

Write us and we shall be glad to send sample and further information about its application. Address Dept. S-363.

FRITZSCHE Brothers, inc.

816 WEST 8TH STREET LOS ANGELES, CAL.
Proprietors of PARFUMERIES de SEILLANS Seillans, France
FRITZSCHE BROTHERS, of Canada, Ltd., 77-79 Jarvis St., Toronto, Canada

PORT AUTHORITY COMMERCE BLDG.
76 NINTH AVENUE, NEW YORK, N. Y.
118 WEST OHIO ST. CHICAGO, ILL.

COLUMBIA

SODA ASH
CAUSTIC SODA
MODIFIED SODAS
CALCIUM CHLORIDE

THE COLUMBIA ALKALI CORPORATION

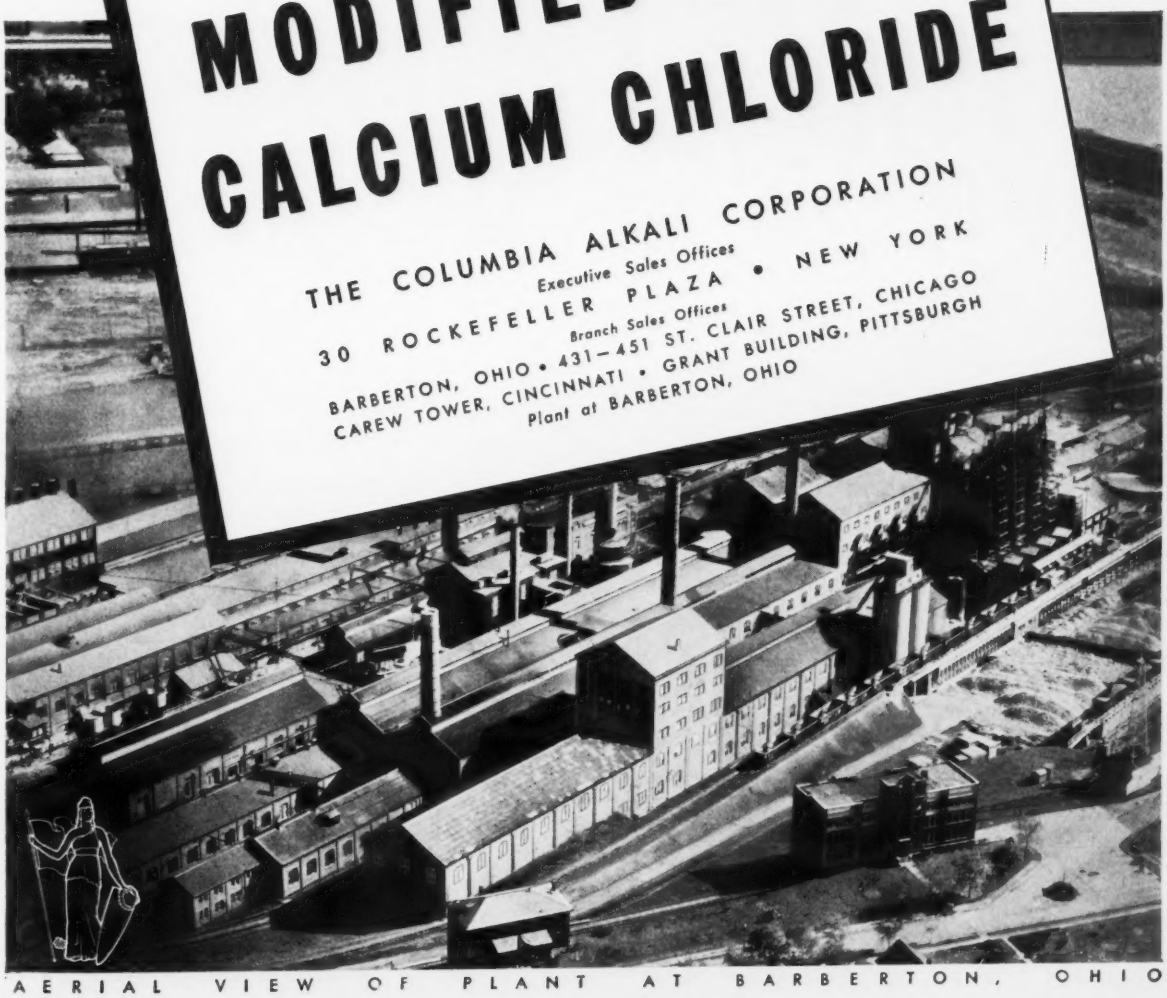
Executive Sales Offices

30 ROCKEFELLER PLAZA • NEW YORK

Branch Sales Offices

BARBERTON, OHIO • 431—451 ST. CLAIR STREET, CHICAGO
CAREW TOWER, CINCINNATI • GRANT BUILDING, PITTSBURGH

Plant at BARBERTON, OHIO



AERIAL VIEW OF PLANT AT BARBERTON, OHIO

Why ANCHOR tests every lot of material

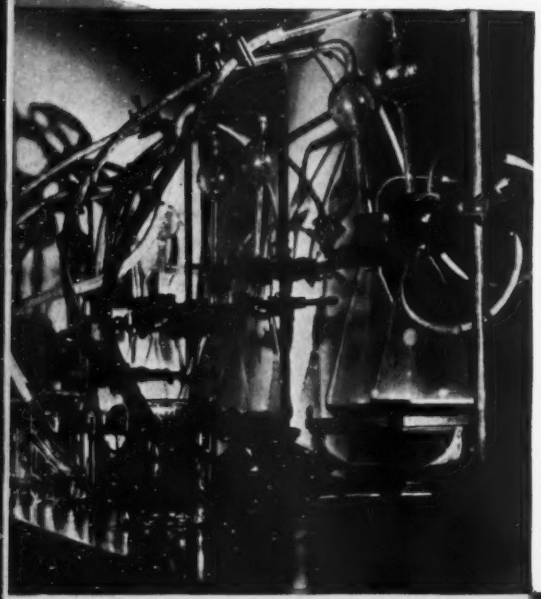
YOU EXPECT a manufacturer to test his materials. But Anchor goes far beyond the expected — in the thorough, exhaustive tests it makes. We make tests every day that others feel are necessary only occasionally; we conduct tests that others don't at all; our laboratories have designed special testing equipment that only a concern of Anchor's size and facilities could possibly possess.

This emphasis on testing shows Anchor's recognition of their responsibility toward the packaging industries—a responsibility that means money to Anchor customers. It means caps that fit perfectly and allow for ordinary variations in glass finishes; that never fail to give the sealing protection intended; that never let you down by causing spoilage, complaints or returns. It means package sealing that is dependable every time, under even adverse conditions, on *all* your output.

To give you some idea of how elaborately Anchor goes about its tests, just consider raw materials. For example, we test tin for ductility, workability, and tin coverage; we test liners for compressibility, resilience and pliability, and where wax is used, the melting point, thickness, color and coverage; we test lacquers for viscosity, color, resistance to heat of processing and sterilizing, acid and alkaline resistance.

All measurements whether of tools, materials, glass finishes or finished caps are checked with precision instruments of various kinds, special gauges, templates, even a contour projection machine and stereoscopic microscope.

Hence when you buy Anchor Caps, you can be sure that they will measure up, not only to specification but to the performance you have a right to expect. ANCHOR CAP & CLOSURE CORPORATION, Long Island City, New York; Toronto, Canada, *Branch offices in all principal cities.*



Above: **In this maze of tubes and beakers and laboratory paraphernalia a tin coverage test is going on, to make certain that the quantity of tin on the base plate comes up to our rigid specifications . . . assurance to you that the Anchor Caps you get will deliver full protection.**

To right: **Another example of Anchor thoroughness in checking, measuring and making sure: a projection machine that "blows up" objects to twenty times their size and throws their picture on a screen where it may be photographed, traced and studied and the most minute variations discovered — in tools, gauges, glass finishes, threads and contours of caps.**

Caps by ANCHOR

SALEM *likewise has its* TESTS

SALEM makes a complete line of Blake containers, of which two are shown above, in all commonly used capacities. We have tried to photograph these two samples as attractively as possible so as to give the reader of this advertisement some indication of how finely made they are, how accurate in dimensions and finish, how lustrous and sparkling is the glass.

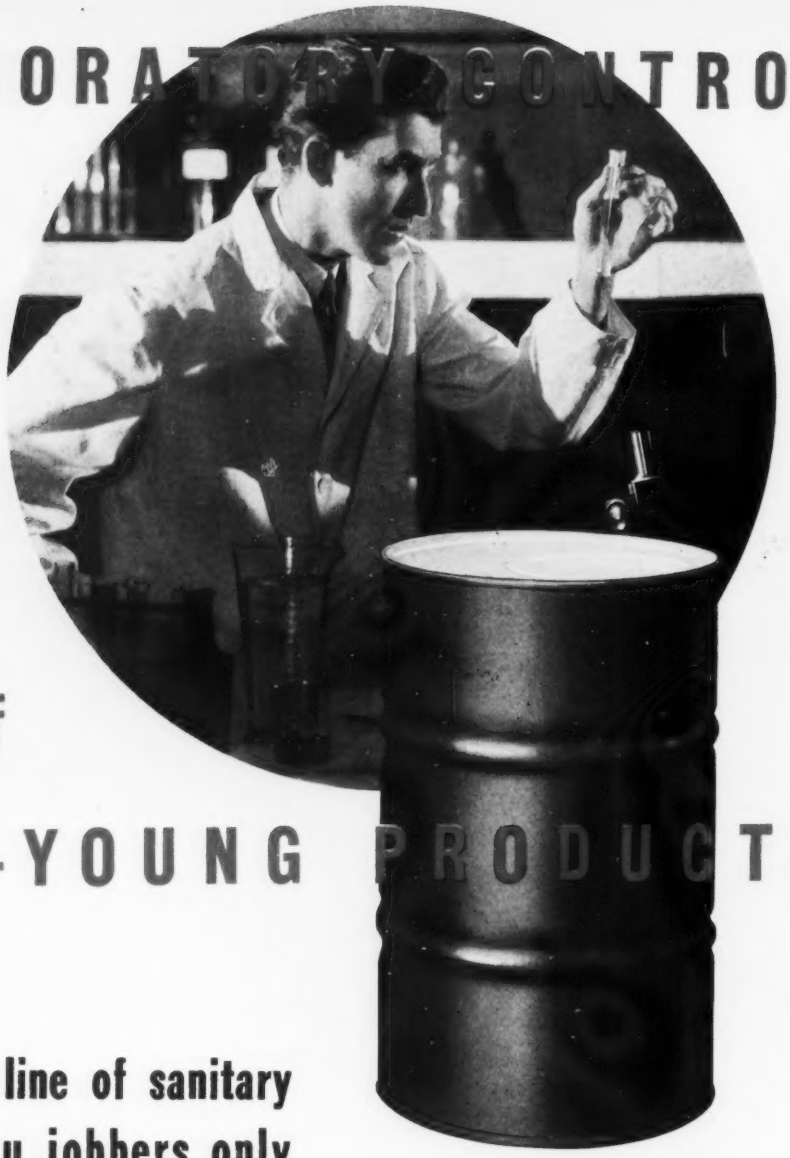
The same is true of all Salem ware whether you happen to be interested in a time-tested, practical style such as the Blake or in a more intricate, individualistic or modern design. Salem quality stems from two principal causes—our knowledge of glass making born of long experience, and of equal importance the lengths to which we go in insuring perfect glassware. If you could see the care that is taken in each step of the manufacturing process, if you could see the many and exhaustive tests we make, the analyses of raw materials, the inspections of the finished product as the containers come from the lehrs, you would realize why so many drug and pharmaceutical houses turn to Salem for their source of glass supply. SALEM GLASS WORKS, Salem, New Jersey. *Associated with* CAPSTAN GLASS COMPANY, Connellsville, Pennsylvania. *Branch offices in all principal cities.*

Automatic Electric Annealing Makes Better Glassware

Commercial glassware invariably gets rough and tumble treatment and must be strong and tough to withstand it. That takes carefully controlled, uniform annealing. The fully automatic annealing lehrs developed and perfected by Capstan are the most accurate and dependable means known for building strength and resistance into glassware. In each lehr there is a series of zones which makes it possible to compensate for the different degrees of heat resulting from changes in the quantity and type of containers passing through. A system of automatic, thermostatic control maintains a correct temperaure curve insuring uniform and properly annealed products.

CAPSTAN *Glass*

LABORATORY CONTROL



assures
uniform
quality of

DAVIES-YOUNG PRODUCTS

NOW a complete line of sanitary supplies sold thru jobbers only

DISINFECTANTS • INSECTICIDES • DEODORANT BLOCKS • POLISHES • WAXES • GYM FINISH • FLOOR SEAL • OIL SOAPS LIQUID SOAPS • COCONUT BASE SOAPS

THE DAVIES-YOUNG SOAP CO.
DAYTON, OHIO

Perfuming Specialties
for the
Soap Industry

A TRULY worth while toilet soap, shampoo or spray deserves something above the ordinary in a perfume. For years Roure-Bertrand Fils and Justin Dupont have been developing specialties, both natural and synthetic, that have lifted innumerable finished products out of the ordinary. This creative ability is working for you in 1936 as in the years before.

Our own extensive perfume laboratory works closely with the Roure-Bertrand and Dupont laboratories abroad. Experience gained through the years with Europe's perfume industry, coupled with a definite knowledge of American requirements, combine to produce the ultimate in perfume odors for any purpose. A wide range of modern perfumes are available, priced to suit almost any requirement. For example:

RESINOID VETIVERT B

Owing to the high cost of Oil Vetivert Bourbon and to the difficulty of obtaining a satisfactory product at any price Resinoid Vetivert B has been developed abroad. Treatment of the roots has been resumed to produce this exceptionally interesting material for soap makers. It is characterized by great strength and stability . . . and is priced reasonably enough to find a place in almost any soap perfuming formula. A generous working sample will be supplied to any soap perfumer interested in investigating this unusual specialty.

Geranium **Lavender** **Vetivert**
Petit Grain **Ylang Ylang**

GEORGE SILVER IMPORT CO.

351 FOURTH AVENUE, NEW YORK

AGENTS FOR: ROURE-BERTRAND FILS and JUSTIN DUPONT

CHICAGO: 722 West Austin Avenue **LOS ANGELES: 819 Santee Street**

D&O
ESTABLISHED IN 1798

ESSENTIAL OILS
SYNTHETIC AROMATICS
COMPOUNDED PERFUME BASES
For the Soap and Insecticide Industries

AUBEPINE
TERPINEOL
HELIOTROPINE

•

These are three important odor materials for every soap maker.

•

Our Products

are free from foreign by-odors and of uniform high quality—Sold at low prices for prompt or future shipment.

DODGE & OLCOTT COMPANY

180 Varick Street . . . New York

BRANCHES: PHILADELPHIA — BOSTON — CHICAGO — ST. LOUIS — LOS ANGELES

"The integrity of the house is reflected in the quality of its products." — *Copyright* 1930

Acetylene Tetrabromide	Ethyl Chloride	Monochlorbenzene
Acetylene Tetrachloride	Ethylene Chlorbromide	Orthodibrombenzene
Bromoform	Ethylene Dibromide	Orthodichlorbenzene
Carbon Bisulphide	Ethylene Dichloride	Propylene Dichloride
Carbon Tetrachloride	Methyl Bromide	Tetrachlorethylene
Chloroform	1.1.2 Trichlorethane	Trichlorbenzene
Ethyl Bromide		Trichlorethylene

PRODUCING more than the twenty different solvents listed, each designed to meet the specific requirements in its field, has given to Dow a unique knowledge of solvents and their use.

For such fundamental purposes as dry cleaning and paint removal to the more involved operations of extracting fats, oils, waxes, resins and alkaloids, Dow has developed a solvent to suit the individual requirements of the user. It is this knowledge and this experience which urges users of solvents to consult Dow.

In the first place there is the justifiable belief that Dow can and will give unbiased recommendations. Coupled with this incentive is a recognition that its solvents, in every instance, represent a quality that users of chemical products have come to regard as unquestionable.

THE DOW CHEMICAL COMPANY • MIDLAND, MICHIGAN

Branch Sales Offices: 30 Rockefeller Plaza, New York City;
Second and Madison Streets, Saint Louis

The Packaging

CONTINENTAL'S CAP SEALED BEER CAN

ADDED CONVENIENCE

BETTER FLAVOR

IMPROVED APPEARANCE

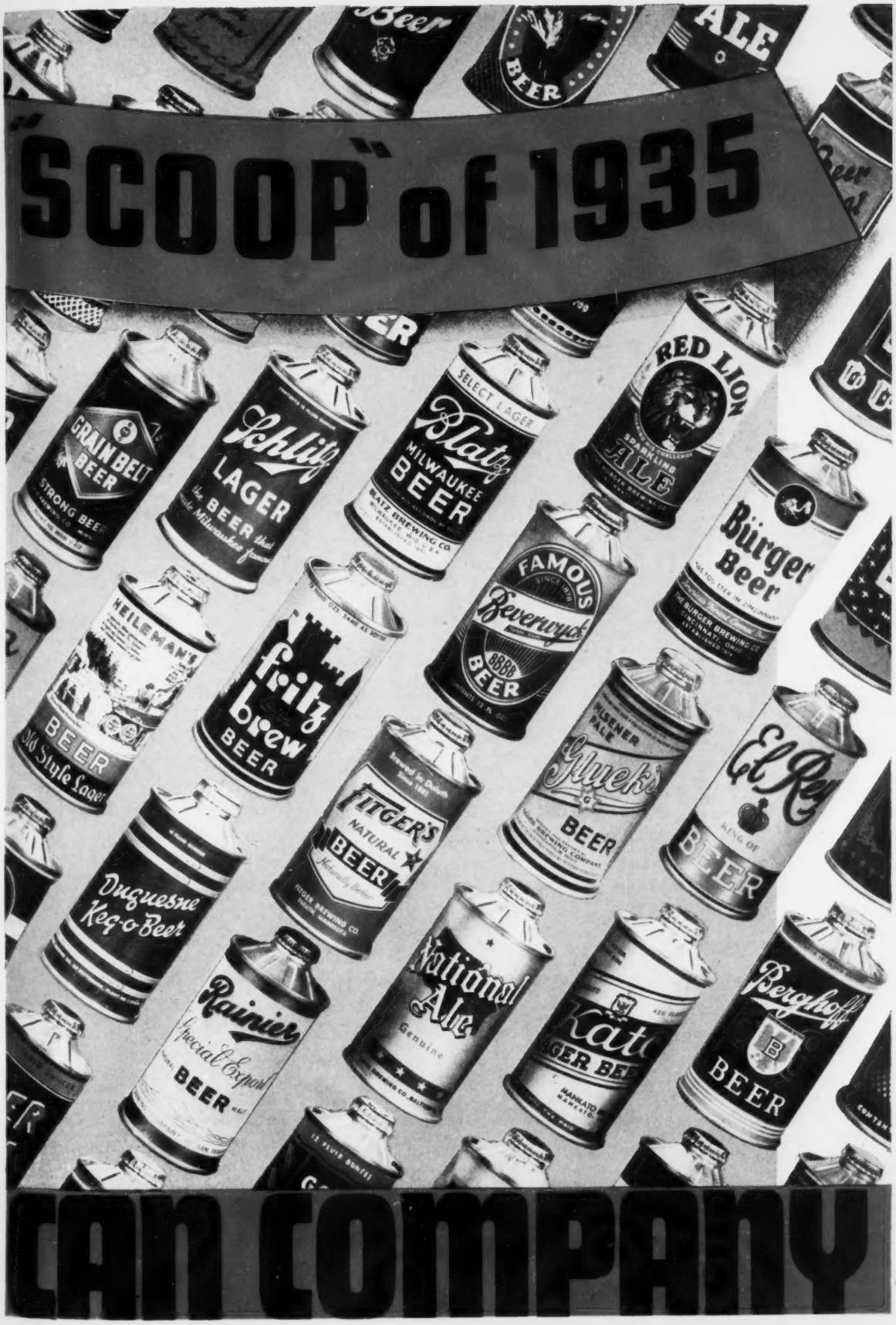
REDUCED SHIPPING COST

INCREASED SALES

WHAT MORE COULD A NEW CONTAINER DO?

To meet the need of an industry, Continental's scientists, engineers and designers drew upon their broad packaging experience to develop this revolutionary new container for beer. The Continental Cap Sealed can, presenting many new advantages without sacrificing the best features of the bottle, indicates the vast facilities which enable Continental to serve anyone who is confronted by a packaging problem.

CONTINENTAL


"SCOOP" of 1935
GRAIN BELT BEER
STRONG BEER
Schlitz LAGER
Blatz MILWAUKEE BEER
RED LION ALE
Burger Beer
FAMOUS Beverwyck BEER
HEILEMAN'S BEER
fritz brew BEER
TIGER'S NATURAL BEER
Duquesne Keg-o-Beer
Rainier Special Export BEER
National Ale Genuine
Kato BEER
El Rey BEER
Berghoff BEER
CAN COMPANY

Soap's patriarch

BAR SOAP is the head of America's family soaps. A milestone in its history was in the early 60's when we introduced silicate of soda as a soap making material.

Many more have since been passed, for soapmakers have always been alert to improve manufacturing methods and to make new products to satisfy changing markets. Paralleling this progress, P. Q. likewise has maintained the pioneering tradition and prepared new soluble silicates to meet the soap industry's needs.

If you have a detergent problem now, whether it concerns your bar soap or one of your packaged products, tap the P. Q. reservoir of detergency research.

PHILADELPHIA QUARTZ COMPANY

General Offices and Laboratory: 125 S. Third Street, Philadelphia, Pa. Chicago Sales Office: Engineering Building. Distributors in 60 cities. Plants at: Anderson, Ind., Baltimore, Md., Chester, Pa., Gardenville, N. Y., Kansas City, Kans., Rahway, N. J., St. Louis, Mo., Utica, Ill. Sold in Canada by National Silicates Ltd., Toronto, Ont.

ESTABLISHED 1831

SILICATES OF SODA

SOAP PERFUME SPECIALS
by SOAP PERFUME SPECIALISTS

Will 60 or 75 cents perfume 100 pounds of toilet soap? It will, *if* your perfume has been *specially* made by perfumers who have made a lifetime study of soap.

We have built up an entire department along those lines and invite your inquiries.

new

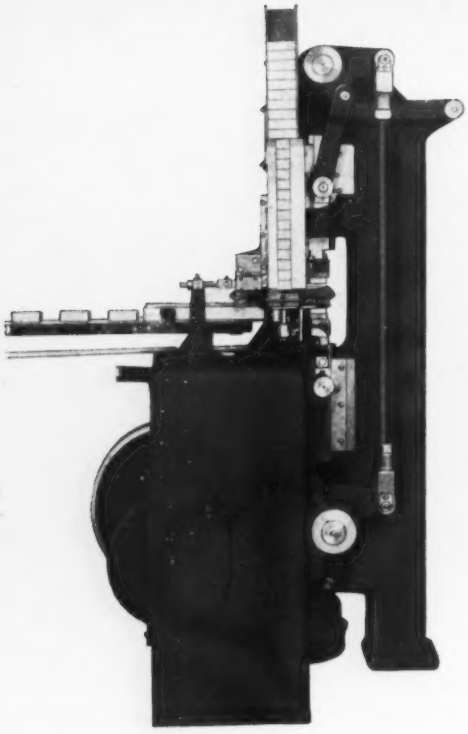
ROSE
GARDENIA
LILAC
ORCHID
JASMIN
SANDAL
BOUQUETS

Price range on above oils $1.50 *to* $4.00 *per lb. All give adequate perfume results in* ¼% *to* 1% *strength.*

van Ameringen-Haebler, Inc.
Aromatic Essentials

315 Fourth Avenue, New York
180 No. Wacker Drive, Chicago
438 West 48th St., Los Angeles
42 Wellington Street, E., Toronto

Factory, Elizabeth, N. J.



TYPE ET

"AVOID MARRED CAKES"

with the

JONES NEW TOGGLE OPERATED PRESS

Brine and other lubricants discolor soap cakes. Avoid this with the JONES TOGGLE PRESS which operates without pressing lubricants on most soaps.

WHY run so much soap thru the plodder and press a second time because of defects caused by old-style feeding devices, or by soap adhering to the dies, when the Jones Toggle Operated Press with the new feeding device will save that expense?

THE new feeding mechanism does not mar the blanks before they go into the dies and after which, the long—very long—time the blank is held under pressure makes its substance cohere so perfectly there is no tendency for particles to adhere to the dies or box.

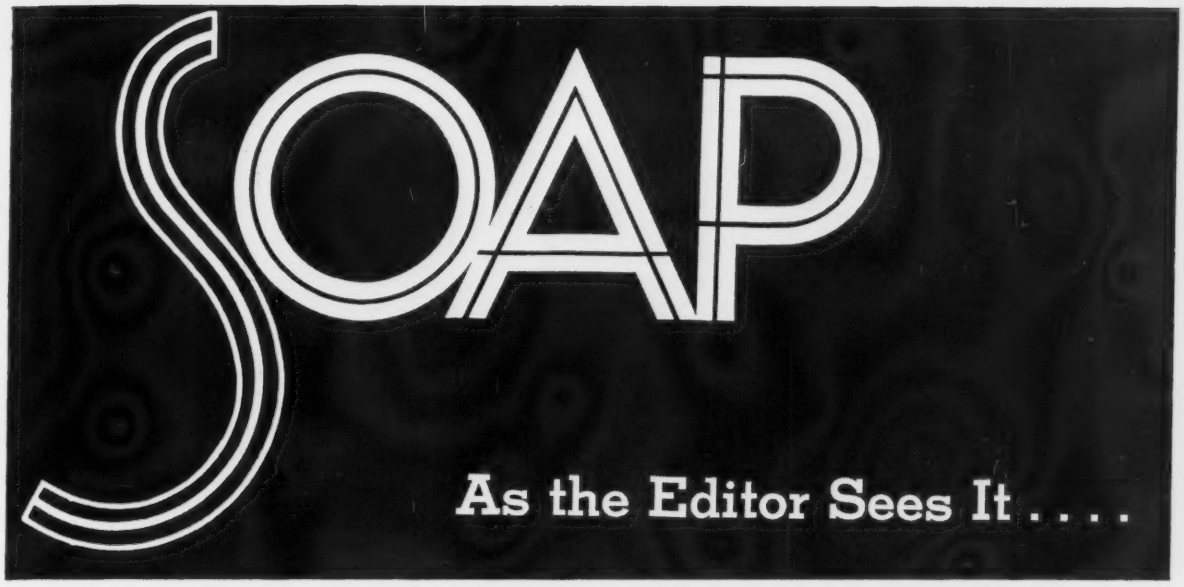
SAVE the cost of inspection and reworking—it's greater than most people realize in these competitive days—by using the Jones Toggle Operated Toilet Soap Press and also do

FAR BETTER PRESSING

R. A. JONES & COMPANY, Inc.

P. O. Box 485 **Cincinnati, Ohio**

Makers of the Standardized Multiple Inserting CONSTANT MOTION CARTONER, the Standard Cartoning Machine of the world.



A DECISION from the United States Supreme Court as to the constitutionality of the coconut oil excise tax may be expected about the end of 1936. It may come later than that but not before the end of the year, according to the legal lights who are familiar with such matters. In the meantime, there is a lull on the battlefront, the soap and margarin manufacturers watching developments on one side, and the cotton oil people, the renderers, and allied "farm" groups digging in on the other.

Both sides are buzzing in and out of the hallowed halls of Congress like busy bees, with the "farm" representatives appearing to have a slight edge in the buzzing. For no matter what the Supreme Court does, the thought is about that a majority in Congress are in favor of the present tax, and will continue it in one form or another by new legislation. There has even been propounded the idea that the coconut oil tax proponents in Congress,—in a spirit of revenge against those who fought this tax in the courts, —will raise the tax to five cents in any new legislation, or in the old law if it is sustained by the Supreme Court.

By some, the Guffey-Dockweiler Bill which calls for tax-free coconut oil where it is denatured so as to be unfit for edible purposes, is held to be the only chance for the soaper to get around the tax. Unquestionably, this would be the next best thing to complete removal of the tax as far as the soap industry is concerned. At the same time, we feel that the same groups, both inside and out of Congress, which put through the coconut oil tax in the first place, will successfully oppose the Guffey-Dockweiler Bill. Their "farm" label has quite obviously been mostly window dressing, just as has been their emphasis on protecting the farmer as the primary producer of edible fats. Their object is and always has been to put up and hold up the market for *all* oils and fats, technical as well as edible. But, be this as it may, there is certainly no harm in the soap industry doing everything in its power to have the Guffey-Dockweiler Bill passed.

—— ♦ ——

COINCIDENT with the decline in liquid soap prices over recent years, a prominent manufacturer points out, there has been a decline in the use of the fluid soaps. Our informant states that there is no question about the reduction in liquid soap consumption, as he bases his statement on figures which he has secured from numerous leading manufacturers. He takes a shot at those in the soap business who believe in building up tonnage by low prices, and says that in the case of liquid soap, low prices have had exactly the reverse effect,—the decline in price has been accompanied by a decline in consumption.

We do not question the facts as presented by this manufacturer. However, we do question the reason which he gives for the reduction in liquid soap consumption. The real reason very probably lies just behind the lower prices,—the matter of quality. As prices have dropped, there is no

question that quality in too many cases has kept pace with the decline. This has been particularly true in the case of smaller manufacturers who have done most of their selling on a price basis. They have been compelled to cut quality to meet their own prices, chiefly because they have seldom ever tried to offer anything to the buyer except price. Many of them have never had a reputation for quality, and have never tried to build one.

If we are to judge by what we have seen, the general quality of liquid soaps on the market has declined. We have seen soaps of five and six per cent concentration sold as "liquid soap" to meet a price. We have seen all kinds of low-grade, poorly made rubbish passed off on price buyers as "liquid soap." And at lower and ever lower prices. There is certainly no wonder that liquid soaps have been given a black eye in so many places,—but it has not been the low prices which have been the cause. The poor quality which these low prices have brought about, is the real cause. Empty soap dispensers on washroom walls tell the tale of disgusted and disgruntled consumers. And even though the buyer by his price tactics is probably the chief factor in his own liquid soap troubles, the liquid soap manufacturer is the main loser in the long run when he cuts prices and then suppiles a soap to meet the cut figure.

No,—low prices for *high quality* liquid soap are not the cause of the trouble. They have not brought about the abandonment of liquid soap by many consumers. The low grade soap,—the only kind which can be delivered at a sharply cut price,—a price often far below even the material cost of an honest soap,—is the answer. If quality standards were ever lived up to throughout the trade, there would soon be a limit below which prices could not be cut. And consumers would not give up liquid soaps in disgust.

—— • ——

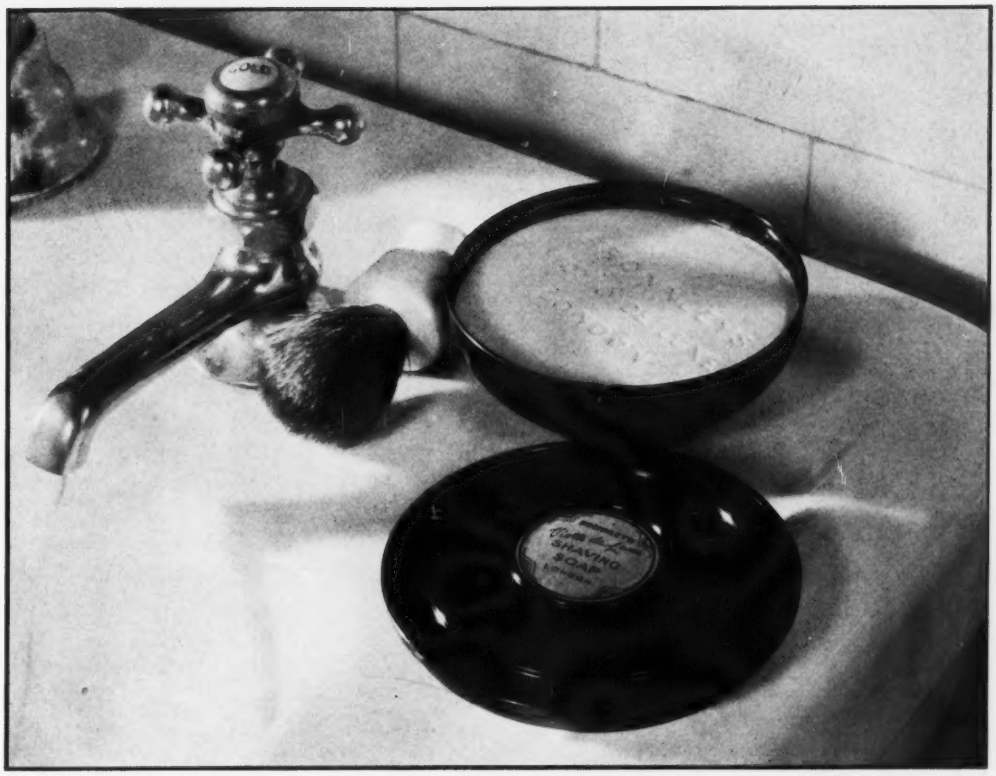
PURCHASING by U. S. Government bureaus and departments, as well as states and municipalities, has become a veritable hodge-podge during the past year or so, if we are to judge by the manner in which certain soaps and detergents, insecticides, disinfectants, and allied products have been purchased. Where official U. S. Bureau of Standard specifications for a long list of products were formerly mandatory upon all federal departments, bureaus, and divisions, —which specifications should also serve as models for states and cities,—they have ceased to be mandatory for well over a year. Coincident has been the appearance of specifications of a wide variety, some of which have been compiled obviously with inadequate knowledge of the products in question. The hope for intelligent or economical purchasing by government agencies, national or local, under present conditions is indeed remote.

—— • ——

ONE of the greatest of indoor sports in America today is the issuance of booklets telling the public how to do it. It may be baking a cake, feeding the baby, or the removal of that spare tire about one's mid-section. In fact, it may be almost anything. Some of the booklets are good, most are out to sell something, and many are just plain unadulterated rubbish. But all in all, this mass of published information is educating the public after a fashion, and making them harder and harder to fool all the time. Even though much of the disseminated fact is so much poppycock,—just as some of the advertising copy of our best firms,—it tends to make the public more inquisitive about the quality and composition of the products which it buys.

Many of these books and booklets are unquestionably conceived in ignorance, and are instrumental in spreading erroneous and harmful information about various and sundry products. A smaller number are intelligently compiled, based on fact, and presented in a common-sense manner. In this latter class is a recent booklet on the purchasing of "Soaps and Other Cleansing Agents", issued by the Household Finance Corporation of Chicago to its members, or customers, or whatever they call the people who borrow money from the company. The booklet is altogether a sensible compilation of important facts about soaps and detergents written that the intelligent portion of the general public may understand it. The information comes from recognized authorities, and is presented tersely and without the usual quota of hot-air.

Those who compiled this booklet are to be congratulated, even though they do say that olive oil castile soap lathers fairly well in cold water and is soothing to sensitive skins. If any soap is soothing to any kind of skin, we will eat a bar of it while doing hand springs up Fifth Avenue. Be that as it may, the appearance of this booklet on soaps in the midst of the blizzard of "educational publicity" under which we are constantly buried, is indeed quite refreshing.



Shaving Preparations

By DR. E. G. THOMSSEN

Chief Chemist, J. R. Watkins Co.

IN the not-so-very-far-distant past, it was customary to judge a soap maker's ability by the type of shaving soap which he produced. If he were able to turn out a good, mild batch of shaving soap in either bar or stick form, his ability as a soap maker was pretty well established. Since the beginning of the century, advertising copyrighters particularly, have originated such stringent publicity specifications for shaving preparations that even the most expert chemist would have difficulty to fit his product to meet the claims of much of the ballyhoo pertaining to these products which appears in magazines and newspapers. It is doubtful whether these advertising statements, which rely largely upon the credulity of the user, have promoted the consumption of shaving preparations by the self-shaver. If he were to try to keep up to the attributes which spring from the fertile brains of advertising agencies, about all that would be necessary for him to do would be to apply the shaving cream or soap to the face, and the whiskers would disappear as gently as a midsummer breeze, leaving his skin soft and smooth as a baby's.

To the uninitiated these exaggerated properties of shaving preparations may appear mysterious, but to the man who must actually manufacture them certain other problems and properties are important.

Shaving preparations include the old-fashioned bar, to be used with the shaving cup, the shaving stick, shaving powder, shaving cream and brushless cream. While there are still quantities of shaving sticks and bar soaps used, shaving creams and brushless creams are the most popular and are now used in the largest amounts. It will be our procedure here to discuss each of these items, setting forth typical formulae and processes by which they may be made.

Shaving Soaps

THE requirements of a good shaving soap are quite different than those of other toilet soaps. The lather produced from shaving soap should be heavy, creamy but not gummy, and remain moist upon the face until the shaving is completed. The soap itself must be of a soft consistency, more soluble than ordinary toilet soap, and in the case of a shaving stick particularly, it should adhere to the face when the stick is rubbed thereon. The

soap, too, must be neutral to prevent smarting during the shaving from any free alkali.

The manufacture of shaving soap entails no particular difficulties. Under shaving soap we include solid soaps like bar soap, shaving stick and shaving powder, which really is nothing more than shaving soap which has been pulverized. These soaps may be made either as full-boiled soaps or in the crutcher as semi-boiled soaps.

The composition of the soap itself is of considerable importance. Owing to the fact that stearins and stearic acid form the close, rich, creamy lather which is desired in shaving soap, it is very important that shaving soaps contain a high percentage of stearic acid. Sodium stearic acid soaps are extremely hard and brittle, as well as quite insoluble. It is, therefore, important that a goodly percentage of potash lye and some glycerine, if necessary, be used in their manufacture. This makes a softer body soap. It is also important that from 20 to 25 per cent of coconut oil be included in the soap stock. Since glycerine aids in keeping the finish of soap soft, it is advisable that this be not removed during saponification.

A convenient method of procedure for full-boiled shaving soap is to charge the soap kettle with a mixture of three parts of good clear, refined stearin, one part white tallow and one part coconut oil. The tallow and stearin are first put into the kettle. These are saponified directly with caustic potash lye. The coconut oil is then introduced, either in the form of soap previously made in the crutcher or as oil, and the saponification is completed with caustic soda lye. It is advisable, near the end point, to neutralize any free alkali in the soap by super-fatting it preferably with stearic acid so that 2 or 3 per cent of free fatty acid is contained in the soap. If high-grade fats are used, it is unnecessary to take off a "nigre," and the soap may be "run." That is to say it is pumped out of the bottom of the kettle with a soap pump into the top to make a uniform mixture before it is dried. This is

more economical than settling the kettle. The soap may then be framed or run through a dryer.

In cases where a soap of this kind is not framed but run over a dryer, it is quite necessary that the temperature inside of the dryer be kept quite low, otherwise the soap will melt—hence large volumes of air and low heat are the best drying conditions.

To manufacture a bar soap by the semi-boiled process, a charge of:

180 lbs. Tallow
108 lbs. Coconut Oil, Cochin Type
207 lbs. Stearic Acid, Double Pressed
132 lbs. Soda Lye 40° B.
108 lbs. Potash Lye 38° B.

is suitable. The operations to make the soap are quite simple. The tallow and coconut oil are saponified in the crutcher with the soda lye. Then the potash lye is added and lastly the stearic acid, which has previously been melted in a lead-lined, aluminum or copper vessel. The

mixing should be very thorough. The soap is tested for free alkali by boiling with phenolphthalein and neutralized alcohol in the usual manner. A soap of this kind should also be super-fatted, preferably with stearic acid in order to produce a milder product. This is done by adding and thoroughly mixing the calculated amount of stearic acid.

Both of these soaps are suitable as bar soaps for shaving mugs by finishing them through the milling and plodding processes and using the base directly as made. In certain cases an addition of regular tallow soap base in the amalgamator may be made in order to control the consistency of the soap.

The use of shaving soaps in turned wooden mugs or containers on the order of those made in England are increasing in popularity in this country. Either of these soaps may be used to fill these containers. It is advisable, however, to add the perfume and about 5 per cent additional glycerine in the crutcher. The soap should be flowed in while fluid and hot.

The shaving soap bases just described do not make a pure white finished soap, but are cream in color. If a pure white shaving stick, is desired, it is advisable to make a soap entirely of coconut oil and stearic acid. A suitable charge for such a soap is as follows:

300 lbs. Coconut Oil
40 lbs. Soda Lye 35° B.
550 lbs. Potash Lye 50° B.
80 lbs. Glycerine C. P.
1050 lbs. Stearic Acid

This soap is made in a crutcher in the same manner as

that described above. There is, of course, no tallow present so that this item is omitted in charging the mixer.

This soap base is usually framed, milled and plodded together with a suitable perfume, and the addition of some titanium dioxide to whiten it. It makes a very white soap. In the past, however, it was more popular than it is at the present time. It is also possible with a soap of this kind to make it entirely from potash lye and flow it into one of the wooden containers which have more or less popularity, especially among users of English types of shaving soaps.

If it is desired to make a shaving powder which is now used in limited quantities, more soda lye should be used and less potash lye. A suitable composition for shaving powder is:

113 lbs. Coconut Oil
140 lbs. Soda Lye 35° B.
170 lbs. Potash Lye 50° B.
550 lbs. Stearic Acid

This soap is made in a crutcher the same as already described. It may be dried in a dryer by keeping the temperature low. It is advisable, however, during the pulverizing operation to add from 25 to 50 per cent dry tallow soap chips, and about 5 per cent talc.

While the use of shaving soaps is more or less limited, it is, nevertheless, true that tremendous quantities of bar soaps are still used in barber shops. Certain barbers also still prefer shaving powder because of the sanitary feature of dispensing it. It still performs a very important part of the business of certain soap manufacturers, and is more profitable than the ordinary run of toilet soaps.

Shaving Creams

THE use of shaving soaps has been largely displaced by shaving creams. These consist of the lather creams and the brushless types. In composition there is not such a great difference between the two, but the lather shaving creams have gained the lead among shaving preparations used by the self-shaver. In some cases these shaving creams are further thinned, largely by the use of water, and appear in the form of liquid shaving products. The liquids do not find much favor and are difficult to produce because of the fact that potassium stearate is not very soluble in water. Shaving creams also are used in barber shops with special dispensers.

The making of good-keeping, suitable shaving creams is not a simple matter. It has perplexed and vexed many a manufacturer. Several brands are still packaged in jars because consistency changes are not as evident in a jar as in a tube. Unless the manufacturer is able to install the proper equipment to make this product in sufficient quantity under proper control, it is advisable to purchase it in bulk or already packaged in tubes. The making of this cream requires more care and can lead to more difficulties than is the case with most soaps or toilet preparations. It has not been an uncommon occurrence to find that the brands put out by some of the largest distributors have been far from perfect. Shaving cream, when first made and filled, is apt to harden or separate in the tubes upon aging.

Cases have come under my observation where manufacturers permit a cream, which is made by a fixed formula, to stand in containers as long as thirty days before filling. By this time they calculate the cream will have attained a permanent consistency and the phenomenon referred to as "rotting" will have taken place. This "rotting" represents the changes the cream undergoes upon standing. It consists of the cream softening and developing a sheen. Even this precaution is futile in many cases. In most creams packaged in collapsible tubes, the action of heat hardens the product rather than softens it. Only careful chemical control will assure a satisfactory cream which may be filled as soon as it is made.

The requirements of a good shaving cream are sevenfold. These are:

1. The cream should remain soft yet firm in consistency so as to exude from the tube without losing its form. It should distribute well into the bristles of the shaving brush or adhere to the face when applied thereto directly from the tube. It should be like a cream and not like a dough. This requirement is emphasized first because it is one in which most failures in shaving creams are exhibited.

2. The cream should give a close, abundant lather that does not dry rapidly on the face.

3. Not too great an amount of cream should be necessary to produce enough lather to cover the face.

4. There should be no smarting, or free alkali in the cream to cause a burning sensation of the skin during or after shaving.

5. It should rinse readily, from a safety razor particularly.

6. The composition of the cream should be such as to not attack collapsible tubes or corrode the clips at the open end of the tube.

7. It should be acceptably perfumed and attractively packaged.

In outlining the manufacture of a shaving cream it will be our object to bear in mind these requirements and lay down certain instructions and characteristics which will tend to produce an acceptable cream of this kind.

The method of manufacture of a shaving cream may be carried on either by the full-boiled or half-boiled process. It has been my experience that the full-boiled process is the better policy to adopt, although many manufacturers produce a very acceptable cream by the half-boiled process. Both methods of boiling are applicable to the same formula. The finished products, however, obtained by a difference in the boiling method, present differences in appearance. The creams made by the half-boiled process are more transparent or bluish in color than those made by the full-boiled process. Then too, the sheen or luster, due to the free stearic acid in the creams, is more evident and pleasing to look at in full-boiled creams than in half-boiled. For this reason the full-boiled process is to be recommended wherever possible. It requires a little more skill, but the results are more safely assured.

Equipment Required

ESSENTIALLY the same mixing equipment is required for making shaving cream by either the half-boiled or the full-boiled process. This consists of a steam-jacketed kettle of the desired size with an agitator that revolves very slowly. The slow motion of the agitator is very important because the cream aerates very readily. The agitator, therefore, should not move more than about 5 R.P.M. The jacket should be connected with both steam and cold water. The only difference in equipment required in order to use the full-boiled process is that an open steam coil in the bottom of the kettle is necessary. This steam coil should contain the perforations drilled downward at an angle of about 45°, and staggered about 8 inches apart. The coil is preferably situated about one-third in from the extreme inside circumference of the kettle. A smaller additional inner open coil is also advantageous. The mixing kettle should be so arranged that the agitator can be removed and the kettle tilted to empty the contents. In cases where this is not feasible, an outlet of at least 6 inches in diameter at the bottom, closed with a suitable gate valve, may be employed for emptying.

The other equipment required is an aluminum, copper or glass-lined vessel, preferably steam-jacketed, for melting the stearic acid; lye tanks made of black iron, and the necessary measuring vessels and scales to meas-

(*Turn to Page* 32)

How to Buy Soap

The public is told how to do it intelligently,—but will the consumer ever really know good soap from bad?

THE purchase of soaps and detergents by the general public is still very much a hit-or-miss proposition,—a situation beclouded by much mystery, advertising twaddle, and a lack of knowledge and facilities to evaluate quality. The trial and error method must still serve to let the public know if its soaps and cleansers are good or bad,—and even after trial, the evidence indicates that a large proportion of the population does not recognize a good product, or a bad one. Witness the case of the English manufacturer who milled up a yellow laundry soap base with plenty of expensive perfume, stamped and wrapped it in the manner of a French toilet soap, and presented cakes to a number of his friends for trial. He told them that it was a very expensive "imported" toilet soap. Without exception, they,—the consuming public in this instance,—pronounced it altogether satisfactory, lauded its quality, its profuse lather, its exquisite odor, and some of them asked for more. And this is the same public for which the soap industry the world over has been working for many years to improve constantly the quality of its soaps. If this same trick were tried today on any number of groups in the United States, the chances are that the results would be just about what they were in England.

Although the general public will probably never buy soaps or other detergent materials with any degree of expertness, the purchase of these materials may be put on a slightly more intelligent basis,—at least for the better informed portions of the population,—by some elementary educational efforts. The more the buyer knows, the greater are his chances to recognize and accept products of merit, and to reject those of doubtful quality,—a situation which the manufacturer of meritorious products should and does wlecome. However, the chances of educating the public widely in a practical way to judge the quality of the soap and detergents which it buys, are indeed remote. Until such time as each and every housewife is chemically trained, and the home is equipped with the necessary laboratory facilities, the public is going to have to take the manufacturer's word for it.

Notwithstanding the obstacles which appear in the path of making the public soap-quality conscious, a recent educational effort by a financial organization calls for favorable comment. It seems that this firm, the Household Finance Corporation of Chicago, which specializes in lending money in small sums to householders, has been carrying on a rather broad campaign to educate its clients in the art of better buying of various household necessities. The sixteenth subject on its list, and on which a twenty-page booklet has been issued, is "Soap and Other Cleansing Agents." It is part of their general campaign of money management and household thrift. Not only is the idea behind the series of booklets commendable, but the facts about soaps and cleansers are intelligently and tersely presented, even though some are subject to question.

Those who aided Carol W. Hyatt, the author, in compiling the booklet include Dr. Martin H. Ittner, chief chemist of Colgate-Palmolive-Peet Co.; C. E. Lennox of Swift & Co.; M. L. Sheely of Armour Soap Works; H. P. Trevithick, chief chemist, N. Y. Produce Exchange; F. W. Smither, U. S. Bureau of Standards; George H. Johnson, Laundryowners' National Association; E. J. Casselman, B. H. Gilmore, Jules Labarthe, of Mellon Institute; Dr. Pauline B. Mack, Pennsylvania State College; Dr. Ellen B. McGowan, Columbia University; Jerome W. Ephraim, New York. The compilation was done under the supervision of Burr Blackburn and Bernice Dodge of the Household Finance Corp.

In spite of the fact that much of the information presented is unquestionably beyond the understanding of the average housewife, and that there is no way in which she can check her purchases in accordance with the information supplied, there is much of value for those who do understand. The manner in which some of the topics have been presented to the buyer of household soaps, is distinctly of interest to soap manufacturers.

Family Soap Bill $15 Yearly

IN discussing manufacturers' claims for their soaps, this Better Buymanship Bulletin states: "Sometimes manufacturers' claims might lead the consumer to believe that a certain brand of soap not only will cleanse everything from hair to skillets with equal effectiveness, but is unsurpassed by any other brand on the market. The facts seem to be that all soaps in each particular class are much alike in their cleansing action, regardless of who makes them. One of the consumer's problems is to discover in which class the soap belongs; that is, whether it is suited for fine fabrics, or only for general laundering and cleaning. These facts sometimes, but not always,

are stated on the packages or bars . . . Consumers, too, have idiosyncracies. They will not ask for soaps which are not advertised. Consumers also demand large boxes of flakes and large bars of laundry soaps at very low prices. They get products containing a small amount of true soap and a large amount of other substances when they buy on this basis . . . It is estimated that 80 per cent of American families' personal and general laundry is washed at home, yet soap used for this and other purposes costs only about $15 a year."

In mentioning soap uses in hard water, it is stated: "All laundry soaps sold for use in the home contain builders. The home laundress would get better results with hard water if she used water softeners independently of the soap, and particularly if she used them in the rinse waters. . . . When softeners are added to soap as it is being manufactured, 'The price is usually greater than their value' . . . They are also objectionable in soap because they make it more alkaline, and may render it unfit for washing silks and woolens. Then, too, they increase the ability of the soap to hold water without appearing wet, and therefore make it possible to produce a soap containing an excessive amount of water."

Toilet Soaps Are Much the Same

IN discussing toilet soaps, the bulletin states: "Any soap which is to be used on the skin or hair should be a mild or neutral soap. It may contain free fat but should not contain alkali, because alkali irritates the skin. As a rule, care is taken to reduce the alkali in good toilet soaps to the least possible amount. It rarely exceeds one-tenth of one per cent.

All any good soap can do is to cleanse efficiently. If the family can afford to indulge in a taste for small bars, perfumed, colored and attractively packaged, well and good. They are no kinder to the skin nor unfriendlier to dirt than the larger, less expensive bars. Some perfumes are very expensive and their presence may account for the only difference between a high-priced perfumed bar and a bar with little or no perfume. The soap itself is much the same. Perfume and color sometimes are used to mask inferior ingredients in cheap toilet soaps. Some persons are peculiarly sensitive to certain (although not all) perfumes, and those irritate their skins. Imported soaps are no better than good domestic varieties because America leads in the art of soap making.

There are several kinds of toilet soaps.

Milled Soaps. Most of the small, firm bars of toilet soap are made by milling boiled-process soaps. Their water content is from eight to 14 per cent lower than that of molded bars. They usually are perfumed and sometimes coloring matter is added. Essentially the same soap stock may be used in these pressed bars as in the molded bars made by the same company.

Floating Soaps appear large for their actual weight. Air is incorporated in them to make them float, and the moisture content is about 30 per cent because it is inherent in the framing and cutting process. The tiny air bubbles help to make the soap quickly soluble in water.

Castile soaps originally were made only of olive oil and soda. One American manufacturer produces a pure castile soap which states on the label that it meets the specifications of the United States Pharmacopoeia (a standard book of formulas) for olive oil-soda soap. A few other manufacturers make olive oil castile soap, but most so-called castile soaps contain other oils in addition to olive oil in varying amounts. Although the lather is somewhat thin and oily, it lathers fairly well in cold water and is soothing to sensitive skins.

Hardwater toilet soaps contain a high percentage of coconut oil because soap made with coconut oil lathers better in hard water. These soaps sometimes are called hard water castile. A few persons find coconut oil soaps irritating to the skin and are unable to use any soap made by combining coconut oil with other fats—which includes all toilet soaps except pure olive oil castile. Salt water soaps are made of coconut oil, palm-kernel oil, or a mixture of the two, because these oils give the best cleansing action in this type of water.

Grit soaps are made by adding pumice or fine sand to the soap while it is in the crutcher. They are marketed in both bar and paste forms. The bars are the most economical because they contain less water. These soaps are useful in removing ink stains and black, greasy substances from the hands.

Liquid toilet soaps seldom are used in the home. Like transparent soaps, they may contain alcohol or glycerine. Tincture of green soap sometimes is used in skin treatments. There is, of course, a large percentage of water in all liquid soaps, the real soap content usually being from 12 to 20 per cent.

Medicated and antiseptic soaps. All soaps have antiseptic value in that they float off bacteria with dirt and grease. Adding substances to 'kill' germs is of doubtful value. The disinfecting power of germicidal soaps is low because soap remains on the skin only a short time and in a weak solution. The opinion of many authorities regarding medicated soaps may be summed up in the statement that 'the purest soap is the best disinfectant.'

Shaving Soaps and Shampoos

MANY men are quite as individualistic in their selection of a shaving soap as many women are in their choice of cosmetics. A man is likely to argue that only a certain type of shaving soap will soften his individual beard. One authority who has made many tests on a number of men under controlled conditions states that *time, hot water, and any soap will soften any beard.* The lather or cream helps to keep the skin and beard from drying before shaving is completed. Some men find that soaps containing coconut oil are irritating to their skins. Hard shaving soaps in cakes and sticks are essentially the same as milled toilet soaps although they may contain a small amount of free fat. Glycerine is used in creams to keep them soft. Brushless creams are more like cosmetics, such as vanishing cream, than soap.

Most persons wash their hair with toilet soaps. Those

who buy special soaps for shampooing usually select liquid soaps. The better liquid shampoo soaps contain about 70 per cent of water and the cheaper ones about 90 per cent. They are usually made with a high percentage of coconut oil because it produces a high lather. Although beauty parlors often say that they use 'only pure castile soap,' there are very few liquid shampoos on the market which are made solely from olive oil. Many are made with coconut oil alone, and so are irritating to some persons.

A new type of liquid preparation, made by sulfating fatty alcohols, lathers like a soap but is entirely different in chemical composition. It is particularly effective for use with hard water because it does not precipitate lime curds, which are almost impossible to rinse out of the hair. As a result it leaves the hair very soft and glossy. It is an efficient oil remover and for this reason is considered by some beauty operators to be especially effective for washing oily hair that is not too fine.

For Washing Silks and Wool?

A NEUTRAL soap used in warm, not hot, water is necessary to protect the colors and preserve the soft handle of wool, silk, rayon and other synthetic fabrics. Soaps containing alkaline materials such as builders, will make these fabrics harsh. Animal fibers, from which silk and wool fabrics are made, are acid in nature. The dyes used on wool, silk, and synthetic fabrics usually are acid. Alkali will react with these acids, weakening the fibers and fading the dyes.

Wool must be washed carefully to prevent it from felting and shrinking. Hot water and mechanical action, such as rubbing or washing in a machine, are more responsible for felting than the soap that is used. However, wool is the most sensitive of all fibers to alkalies, and for this reason a neutral soap is especially desirable.

Toilet soaps may be used on these fabrics, but other kinds may be cheaper. Flakes, beads, and grains have become popular because they dissolve rapidly in warm water. Manufacturers say that women waste soap in this form by using more than is necessary to make good suds. Since there should be suds before the garments are put into the water, and it takes more time to make suds with bar soaps, the sales of packaged soaps probably will continue to increase. Most soaps for fine laundering have the words 'for silk, wool and rayon' printed on the box. The manufacturers also recommend them for dish washing, but cheaper soaps will do as well for that job although some of them may roughen the hands. The weight, not the size of the box, should be noted when comparing prices. Boxes containing the same weight differ in size because some flakes and grains pack more closely than others. It is impossible to compare the real soap content, because there is no way of comparing the water content in the soap.

It is more difficult to select a good laundry soap than any other of the soap products. All laundry soaps are built soaps, and it is impossible to learn how much builder and water, and how much soap they contain. About the only guide is their effect upon the hands and this is only approximate because skins differ in the degree of their reaction to alkalies. Some alkaline material is useful in removing grease from heavily soiled garments, but if much is present it replaces soap which is a better cleanser for most purposes. The labels on laundry soaps, particularly those in packages, sometimes recommend the soap for all uses including the washing of silks and woolens. If the soap is recommended for general laundering it is safe to assume that it contains too much alkaline material to be used on delicate fabrics.

White laundry bars contain sodium silicate (water glass) which aids the cleansing action somewhat and hardens the soap, although it holds a large amount of water. In the cheapest white laundry bars the silicate content may be 30 to 40 per cent and the water about another 40 per cent.

Yellow laundry bars take their color from the rosin they contain. Rosin increases the lathering qualities if it does not amount to more than 30 per cent of the total fat. 'Large amounts tend to make the soap sticky and too soluble and to harden the fabric washed with it.' It is difficult to rinse out rosin soap in hard water and it may leave yellow streaks or stains. Yellow laundry bars usually contain from 10 to 15 per cent more real soap than white laundry bars, and from 30 to 36 per cent of water. A smaller amount of builders is used because they will crystallize on the outside of the bar if it is left on the grocer's shelves too long. Large, murky-looking yellow bars which are poorly stamped with the maker's brand are the poorest of this class of soaps.

Naphtha soaps, according to an agreement between manufacturers and the Federal Trade Commission, must contain more than one per cent of naphtha by weight at the time they are sold to the consumer. The naphtha evaporates as the soap is exposed to the air. Naphtha 'may be incorporated to the extent of 10 per cent of the soap mass, and if it reaches the consumer with that approximate composition, there is no doubt of its efficacy as a detergent. Manufacturers who test many soaps state that naphtha bars usually contain not more than seven per cent of naphtha when they reach the consumer, and many contain less, because the naphtha gradually evaporates. Some authorities believe that naphtha in such small amounts has only a sales-appeal value.

Soap granules, chips and powdered soap vary widely in their real soap content. They may contain less than half as much water as laundry bars, sometimes as little as five to 10 per cent, but the cheaper types contain large amounts of moisture, silicate and other builders.

Soap powders (which are not the same as the true powdered soaps mentioned above) are low in price but are a poor value if you want soap. They are characterized by high moisture, high builder, and low soap content. They are suitable only for rough cleaning jobs. From the standpoint of value received, washing powders are about the most expensive of the laundry supplies.

European manufacturers are giving more attention to the packaging of toilet soaps. A few soaps picked up by Martin Ullman in his study of soap packaging in Europe showing the American influence, traditional lines, and pictorial treatment.

SOME Comments on

Foreign Soap Packaging

By Martin Ullman

EUROPEAN manufacturers of late have been giving a great deal more attention to the packaging of their toilet soaps than heretofore. Of course, packaging transition is almost constant, encouraged by changing living conditions, new ideals of convenience, improved products, and new developments in packaging materials. However, reports of the more recent impetus which has been given to the improvement in soap packaging in Europe by the general progress in package design, improvement, led me to look into the situation on an extended visit to France, England, Sweden, Germany, and Denmark, from which I have just returned.

The foreign soaps illustrated herewith were selected not because they are all paragons of good design, but because each and every one of them has several good points to recommend their perusal and because they represent three separate classes of packaged soap design prevalent in the European countries. Before discussing these soaps or their package wrappings, it is well to state that from a careful record maintained of all of my purchases these soaps are comparative in price and size with those produced in this country, and to emphasize the point that the same machines which make mass production the accepted formula in America, are employed to turn out these foreign creations.

That the American design influence has invaded foreign shores is exemplified by two Swedish soaps—Oke and Gahna, the first a product of Barnangens Tekniska Fabrikers A.B., of Stockholm, the latter one of Henrik Gahns Aktiebolag, Upsala. These both follow the accepted American precept in soap wrapper design that product name should be accentuated above all else, with little else on the face of the wrapper. The Oke soap (even the name reflects the American influence) has a two-color wrapper, green lettering against a deep blue background. Gahna, too, has a two-color design, yellow lettering set in a brown triangle against an orange-red solid background. Company identification appears on the under surface of these two soaps. The bold lettering of product name presumably gives these items shelf display visibility. This type of soap wrapper design, however, is in the minority stage abroad.

The traditional type of soap wrapper is exemplified by the Guerlain line, featured by the internationally known Paris house. Here atmosphere is given the design by use of old-fashioned pictures, in this case a reproduction of a boating native spearing a whale for the oil to be procured. Product name is subordinated to the atmospheric motif, product recognition depending upon the consumer's visual mind. The entire wrapper is printed in black and white with some use made of reverse lettering. A legend carried on the side of this wrapper is interesting. It states: Par Brevet d'Invention Sans Garantie du Gouvernment (by right of invention, without governmental guarantee). Imagine American soaps carrying similar legends! This type of soap wrapper design is fast disappearing from the counters of European department stores to be replaced by the third classification.

In keeping with a rapidly growing trend throughout Europe soap wrappers are being designed with pictorial treatment. The famous Chinese proverb about photographs being worth a thousand words holds true in package design. It should be the purpose of the outer wrapping, or package, to convey to the consumer the inner contents without further need for printed explanation. This trend is depicted in two of the illustrated soaps—Ovicula and Gahns Saltsjo, both of Scandanavian manufacture. Ovicula, a product of Perfymeri F. Pauli, is an egg shampoo type of soap. A newly-bred chick gazing at the broken shell from which he has just emerged pictorially convinces the consumer as to the egg shampoo content. The word—Agg—on the wrapper further stresses this use. The wrapper is printed in two colors, yellow against a printed deep brown background, product name and chick being in yellow tying both of them together.

Gahns Saltsjo Tval (Gahns Salt Water Soap) is intended to perform a function similar to that of bath salts with the ensuing benefits to the user. The idea of the product's nature is treated by the design in the form of ocean waves, green in color, all six sides of the carton in which this soap is retailed carrying out this wave motif. Two colors are again used, yellow lettering and the green waves. The effect of a third color is secured by reverse lettering of product name. Further emphasis of product use is found on one of the sides of the carton informing the purchaser that the soap is recommended for use much the same as is bath salts. A plain tissue paper wrapper embraces the soap itself within the carton.

THERE also is a trend in European merchandising methods to supply soaps with a convenience appeal to the consumer. Along these lines are the illustrated Illum and "333" brands, Swedish and French, respec-

tively. The Illum soap features a short piece of white ribbon embedded into the soap itself topped off with a small celluloid ring. The purpose of this is both convenience and economy. The soap may be suspended from a small hook or hanger above the wash basin making it easy to secure when wanted and preserving the soap when not in use since the possibilities of softening are lessened when the soap is not left remaining in a watery soap dish.

The "333" brand is put up in collapsible tube form topped off with a close-fitting screw-on metal cap. One color printing is used, black lettering against a solid yellow background. The tube, of a size which generally is termed "giant" in this country, is inserted in a slide, heavy paper tube almost circular in shape, with cut-outs provided at the bottom of the paper tube to permit the of the tube, to fit snugly and be handled with ease.
crimped edge of the collapsible tin, wider than the rest

Also noticeable to the observer of foreign packaged soaps is the fact that there is a trend toward selling packaged units rather than single unit sales. An example of this is the three-unit Guerlain carton, a two-piece box with the cover printed in black and gold featuring a sperm whale in the center of the design.

There is a more definite sampling effort made in the foreign countries on soap than here. The wrappers are given the same careful design attention that goes into the finished product. The excellence of the soap is presumably the same. It is interesting to note that the small sample units of Guerlain soap shown contain wrappers with a replica of the design on the three-unit carton described above. The wrappers on these samples are printed in one color only, a definite color (such as yellow or rose) against a solid background.

What should be particularly interesting to American soap manufacturers is the attention paid to forgotten areas by Europeans. The forgotten area is best described by the blank and unadorned portion of the product revealed to view when the outer wrapping or carton is removed. Where our American soaps usually have the product name simply cut into (or embossed) the surface or both sides of the soap itself, the foreign soaps have simple, yet intriguing designs. There is a definite design on most of the foreign soaps, trade-marks and lettering taking the form of a pattern. Since soaps are of standard shapes, egg-shaped or rectangular, the world over, this special design attention to the product itself seems to me to be worthy of more merit than is often given it.

Before concluding I should like to convey one more impression of the dozens of soaps and soap packages I handled during my tour and study of foreign packaging, and that is this:—although mass production methods allow little variation in the shapes of soap, I was impressed by the efforts of several German manufacturers to secure some variety and offer increased consumer convenience at the same time. In these cases the soaps are being designed to fit the hand. In some instances one or both sides are concave; in others there are ribs along the edges of the soap. Handicapped as tney must be by patented wrapping and enclosing machinery, soap executives might do well to give as much attention to the product itself as to the outer wrapping or covering.

Shaving Preparations

(*From Page 26*)

ure and weigh out the ingredients. There should also be available the necessary laboratory apparatus for testing as well as the collapsible tube filling and closing machinery.

Raw Materials Required

THE raw materials which enter the manufacture of shaving cream need some comment. Upon them depend the consistency, lathering properties and keeping qualities of the finished creams. Not so many years ago works on soap indicated that shaving creams could be made from a combination of high-grade tallow and coconut oil, saponified with caustic potash lye. This is no longer true, as it is difficult to make a satisfactory cream from these two products alone. A goodly percentage of stearic acid is required to make a satisfactory product. Either the double or single pressed may be used. The higher-priced triple pressed produces a whiter finished product, but its higher melting point and hardness are not particularly needed to produce a good cream. In addition to stearic acid, coconut oil, good-grade tallow and olive oil are most frequently used, as the fatty acid constituents of the soap.

The alkalies used in manufacturing shaving cream are a combination of caustic potash and caustic soda. In some formulae, ammonia appears, but this is not desirable because of the unstable soap formed. The most desirable proportion of alkalies is about one part caustic soda and five parts caustic potash. A shaving cream made from this combination of alkalies permits a lower percentage of total fatty acids in the finished cream, a softer cream and produces one that spreads or distributes on the face and shaving brush more readily.

A most convenient way to handle the lyes is to make them both 20° B. in strength. A caustic potash lye of this density contains about 19 per cent solid caustic potash and 1 lb. of lye practically saponifies 1 lb. of the acid or fat used. The soda lye of 20° B. strength contains about 14.25 per cent caustic soda and also practically saponifies the fatty acid or fat pound for pound. It is, of course, necessary to make proper adjustments at the finish. The other raw materials required are glycerine, an organic acid preferably boric, perfume and, in some cases, alcohol.

(*To be concluded*)

A cleaning composition is made by mixing together oil of turpentine, sulfooleate, cyclohexanol, ammonium hydroxide, amyl acetate, magnesium oxide and water. Paul Antenen and Arnold Brunner. Swiss Patent No. 175,610.

Some Soap Selling Is Different!

Frank Hagerman

IN CANADA, not far from the Maine border, there is a soap business which is different. And likewise, the man who operates the business is different. Although he has been manufacturing and selling soap for over fifty years, he has confined his advertising and sales efforts to within comparatively short distances from his plant. People in Chicago, St. Louis, and New York, have probably never heard of him. But to the people of New Brunswick and down across the border into the State of Maine, he is well-known for the homely wit and humor of his advertising copy,—copy written always in the form of rhymes and jingles.

The plant of Frank Hagerman, soap manufacturer, is located at Hartland, New Brunswick, not far from the Maine border. It is a three-story structure of concrete, built by Mr. Hagerman some twelve years ago from his own design, and located in the heart of the town. As small soap plants go, it is quite a plant, and like some five or six hundred other small soap manufacturers scattered throughout Canada and the United States, it keeps on running, and making soap which Frank Hagerman sells in spite of the competition from the large national advertisers. At eighty-one years of age, he is said to be one of the oldest active soap makers in the world, still alert and aggressive both mentally and physically.

At their Hartland plant, the Hagermans,—there is also another member of the family in the business, C. B. Hagerman, the son of Frank Hagerman, who acts as chief assistant to his father,—manufacture toilet soaps, hand soaps, laundry soaps, and disinfectant soap specialties. Practically all of the selling has been carried on by Frank Hagerman, himself, his contacts direct with the retail trade dating back since the beginning of the business a half-century ago. Cleanall Laundry Soap and Eureka Hand Cleaner are two of their best known and most widely advertised brands.

In reading over some of the Hagerman poetic advertisements, one is reminded of Sapolio advertising with Spotless Town and its catchy jingles of a quarter-century ago. Although Mr. Hagerman has written and used some 600 pieces of prose-poetry chiefly in his advertising over the years, he has also won quite a reputation as a local poet through New Brunswick, Nova Scotia, and parts of Maine. Even office correspondence is sometimes sent out in rhyme in keeping with the advertising motif of the business. On numerous occasions, his poetry has been of other things than soap,—the lowly potato coming in for its share of attention, for the home of Hagerman soaps is in the center of the Maine-Canada potato producing district, and the potato is the chief source of income for most of his customers.

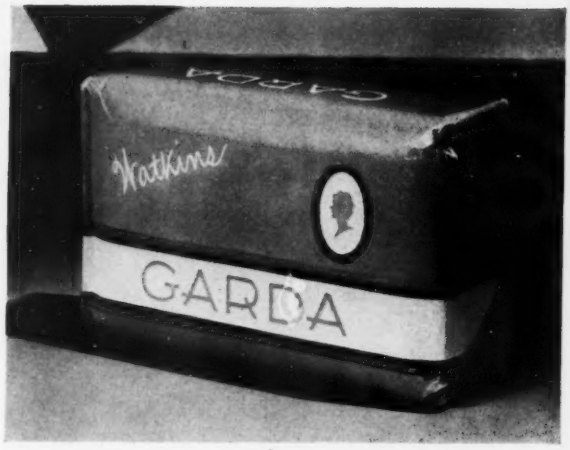
Just as Schlitz is the beer that made Milwaukee famous, so is Hartland, New Brunswick, famous as the home of Hagerman's Products, according to this unusual character. However, very probably beer or anything stronger would be taboo for comparative or other purposes in a Hagerman rhyme for he is reported to be a staunch prohibitionist. In fact he has been a speaker and has read his poems throughout the countryside in the interests of temperance. His poems are reproduced in various and sundry advertising booklets, fifteen or twenty to the book, all boosting Hagerman products, and distributed to every type of buyer from railroad purchasing agents down to the local barber and housewife. One of his methods of selling soap is to organize local groups of farm people in various communities and among other things encourage the purchase of soap in large quantities for distribution to the members. At meetings of these cooperative groups, Frank Hagerman always holds the center of the stage, his poems playing an important part in the activities.

Local characters throughout New Brunswick play their parts in the Hagerman prose-poetry which of course adds to the zest that the natives secure from his writings. Even collection letters and bad accounts come in for their share of rhymes. The longest covered bridge in the world which crosses the St. John River directly opposite the Hagerman factory is likewise a subject of poetic comment, as is the "finest pool for salmon fishing on the St. John River" located some two hundred yards from the plant.

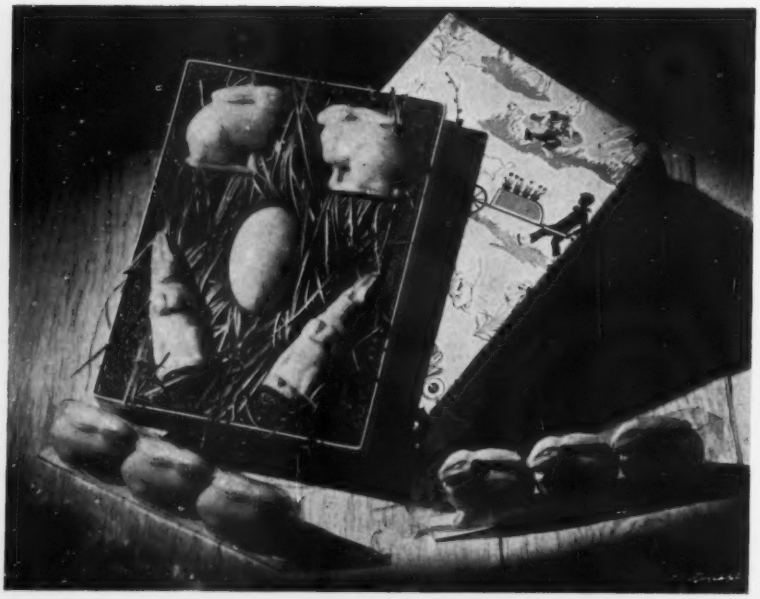
This soap business of Frank Hagerman and his son is indeed unique and different, as is the character at its head who year after year keeps plugging away, selling his soap to his local trade with seldom a thought of spreading his sales to other worlds.

New Products

A new toilet soap, "Blue Spruce", by the Lightfoot Schultz Company of New York. The bars of soap are a deep blue-green color and scented with the odor of spruce. A hinged box in gold and green with spruce design inside and out for effective counter display.



One of the latest additions to the Watkins line,—Garda Toilet Soap by the J. R. Watkins Company of Winona, Minn. Standard size bar packaged in green, black and white wrapper.



For the Easter trade,—two new soap novelties from the Allen B. Wrisley Company of Chicago. Four rabbits and egg in "nest" package in pink, white or lavender, retails for twenty-five cents. Three rabbits in cellophane, same colors, is a ten-cent seller.

ts and Packages

Sonneborn shows the new Amalie Auto Soap in action,—olive green auto soap in bars bearing the widely-known trade name of their automotive lubricants, Amalie,—suds profusely in cold water. Made by L. Sonneborn Sons, Inc. of New York.

Applied colored lettering fused into the glass surface is a feature of the new jar for Stag Brushless Shaving Cream of Langlois, made and distributed by United Drug Company of Boston. No labels used. Jar designed and manufactured by Owens-Illinois.

Palmolive presents the newest thing in shaving sticks and carton. Wrapped in silver foil with handle of moulded plastic. A newly designed shave product among the solid soaps to meet the challenge of the shaving bowl.

GRASSELLI TRI-SODIUM PHOSPHATE

good t·s·p

GRASSELLI Tri-Sodium Phosphate is standard for general cleaning purposes. It has fairly won its reputation as *GOOD* T.S.P.—for 6 definite reasons:

1—Quality backed by 97 years of chemical experience; *2—a process* permitting Grasselli T.S.P. to *cure* (hence it is free flowing); *3—five grades*—fines, globular, medium, coarse, and flake; *4—almost instantly soluble* in water making hard water soft; *5—non-sifting packages*—barrels with paper liners, also fibre kegs and bags; *6—Twenty branches* and warehouses to serve you—quicker delivery—complete stocks—economy of freight rates.

That, in a nutshell, is why *Grasselli Grade* is known as *good* T.S.P.—and *good* Service. Prove it to yourself—try it.

Let Us Also Quote You On

Silicate of Soda
Caustic Soda
Soda Ash
Carbon Tetrachloride
Paradichlorobenzene
Sodium Fluoride

THE GRASSELLI CHEMICAL COMPANY, Inc.
FOUNDED 1839 **CLEVELAND, OHIO**

New York Office and Export Office: 350 Fifth Avenue

GRASSELLI

ALBANY, BIRMINGHAM, BOSTON, CHARLOTTE, CHICAGO, CINCINNATI, DETROIT, MILWAUKEE, NEW HAVEN, NEW ORLEANS, PHILADELPHIA, PITTSBURGH, ST. LOUIS, ST. PAUL

DU PONT

SAN FRANCISCO, 584 Mission Street
LOS ANGELES, 2260 East 15th Street

Represented in Canada by CANADIAN INDUSTRIES, LTD., General Chemicals Division—MONTREAL and TORONTO

GRASSELLI GRADE

A standard held high for 97 years

NEWS . . . . . .

Fels Bonus to Workers

For the thirty-fifth year in succession Fels-Naphtha Soap Co., Philadelphia, paid its annual bonus to employees. Part of the distribution was made before Christmas and the balance was given out February 17 when the books were closed. Payments are based on length, grade and quality of service. The lowest rate of payment this year was 22½ per cent of the yearly salary.

"Sapolio" Advertising

The new advertising campaign which has been announced for "Sapolio", product of Enoch Morgan's Sons Co., will feature a revival of "Spotless Town", famous in soap advertising twenty-five or thirty years ago. The first of a series of test advertisements has been released and a large-scale national campaign will open shortly.

P. & G. Shut Down July 1-10

All plants of Procter & Gamble Co. will close down from July 1 to July 10 this year during which all workers of a year's employment with the firm will be granted a week vacation with pay, according to R. R. Deupree, president of the company. The vacation plan was announced in connection with the distribution of $600,000 to employes as a semi-annual payment under the firm's profit-sharing plan.

Ittner Addresses Pratt Alumni

Dr. Martin H. Ittner, chief chemist for the Colgate-Palmolive-Peet Co. and president of the American Institute of Chemical Engineers, was the main speaker at the annual dinner of the Chemical Engineering Alumni Association of Pratt Institute, Brooklyn, Feb. 15, held at the Hotel Bossert, Brooklyn. Dr. Ittner lauded the younger generation of chemical engineers in industry today and stated that they were better equipped to carry on the work of the chemical process industries than their predecessors. Other speakers at the dinner were Dr. Allen Rogers, head of the chemical engineering department, and Dr. S. S. Edmands, dean of the School of Science and Technology.

New Liquid Baby Soap

Breck's "Baby Lavo," a liquid soap especially recommended for use on infants, has just been brought out by John H. Breck, Inc. It carries the endorsement of the Westfield Testing and Research Laboratories. The bottle is by Owens-Illinois Glass Co. and the cap by Colt's Patent Fire Arms Mfg. Co.

Join Hunnewell Soap Co.

E. H. Walker has become associated with the Hunnewell Soap Co., Cincinnati, in charge of the New York branch of the company. Church Anderson has been placed in charge of sales activities in the Los Angeles, Calif., territory, according to an announcement from Leslie Webb, Jr., head of the firm.

Cut Haiti Soap Output

The soap plant of Usine a Manteque at Port-au-Prince, Haiti, operated by O. J. Brandt & Co. of that city, which firm also produces and refines cotton oil, has materially curtailed operations as the result of a new tax of almost a cent per pound placed on laundry soap by the Haitian government. Because of preferential tariffs which cannot be changed, laundry soap can now be imported from England and undersell the Haitian manufacturers. The latter are now confining their soap manufacture merely to using up such foots and other by-products from their own oil refining operations.

New Wrisley Package Designer

Allen B. Wrisley Co., Chicago soap makers, have recently retained Harry Dearling, prominent New York designer, as a consultant on packaging problems. Mr. Dearling will devote his entire time to developing and styling packages for Wrisley's soaps and toiletries, including their private brand items.

Swift Hydrogen Unit Explodes

The hydrogen generating plant of Swift & Co., located in the Chicago stock yards, was completely demolished by an explosion on February 13th. Four workmen were killed and fifteen injured. Although the Swift soap plant is only a short distance from the ruins of the hydrogen plant, it escaped damage except for the shattering of windows.

New "Shinola" Cleaner

The Gold Dust Corporation, New York, will use display advertising space in national publications to promote its new product, "New Shinola" white cleaner. Following the weather, it has started newspaper and radio campaigns in Florida. Later more Northern territories will be reached in the campaign. The cleanser is packed in both bottles and tubes, each of which can be obtained in two sizes—a 10-cent and 25-cent size.

Develop Vitamin Soap

The development of a soap containing vitamin D has been announced by Dr. George Sperti of the Institutum Divi Thomae, Cincinnati. Dr. Sperti points out that vitamins A and D may be absorbed through the skin as readily as by means of food. His experiments have shown, he said, that the skin is definitely a means for feeding the body.

AWARD WINNER

Fels-Naptha Soap Chips package receives first prize in the wrappings group of the 1935 All-America Package Competition

FELS-NAPTHA

Announces their NEW SOAP CHIPS

Fels & Company score a double triumph! First by introducing the first and only Naptha Soap Chip. Second by receiving a major award for their new package.

Two notable achievements—and the second one all the more impressive because this new container is Fels & Company's initial experience with folding carton packaging.

Pneumatic was privileged to work hand in hand with Fels & Company in planning the most economical production of this prize winning container. Once again Pneumatic demonstrated their ability to start with the ground work so necessary in developing a package which will meet with the approval of both sales and manufacturing departments. The Pneu-tite Wax Package was the answer—incorporating a special pouring spout for added consumer convenience. This new package is tight wrapped with a printed waxed-one-side wrapper, assuring extra product protection and eliminating the need for and expense of two separate wrappers.

Another example of how close cooperation between the manufacturer and our engineering staff can produce the right package at a "lower cost per container."

PNEUMATIC SCALE

LOWER COST per Container

PNEUMATIC SCALE CORPORATION, LTD.

85 Newport Ave., Quincy, Massachusetts (Norfolk Downs Station)

Branch Offices in New York, 117 Liberty Street; Chicago, 360 North Michigan Avenue; San Francisco, 320 Market Street; Los Angeles, 443 South San Pedro Street; Melbourne, Victoria; Sydney, N. S. W. and No. 41 Whitehall, London, S. W. 1

Packaging Machinery

Study British Detergents

The annual report of the British Launderers' Research Association, which has just been issued by the British Department of Scientific and Industrial Research, reveals that last year work on detergent efficiency was confined mainly to the conditions existing in the washing of white work. This section has now been extended to include an investigation of the efficiency of various detergent mixtures for cleansing at lower temperatures, such as operate in the washing of woolens and dyed goods.

As a preliminary to the plant room experiments, a test piece was devised which incorporates temperature and color fastness indicators. The selection of dyes suggested by the Color Fastness Committee was not sufficiently comprehensive for this purpose and numerous other dyeings were tried so as to obtain a representative series of several dyes which under normal conditions of laundering, have fastnesses varying in steps from fugitive to very fast. In order to measure the loss of color of these indicator strips the photometer specially designed in the Association's laboratories for the white work test piece was modified to permit the measurement of dyed fabrics.

Progress was also made in the investigation of the physico-chemical properties of detergent solutions. A study of the pH of solutions of various alkalies at temperatures between 20 deg. and 80 deg. C. was completed, and the relation between pH and surface tension of mixed solutions of these alkalies with soaps manufactured from single fatty acids was studied. An apparatus was also devised for the measurement of wetting power by electrical means.

The efficiency and rapidity of washing and especially of rinsing in rotary washing machines vary between wide limits in different designs of machine. This is known to be largely due to differences in rates of mixing and diffusion of water within the machine and the load. Preliminary investigation work using chemical and thermal methods of measurement gave encouraging results but were too slow in use. An electrical conductivity method giving direct readings has therefore been developed and with this measurements are now being carried out on suitable machines in order to elucidate the importance of the various factors concerned.

Advisory service and the investigation of special problems now form important sections of the association's work, and these have been extended to include launderability tests on samples of unwashed fabric. Educational work in cooperation with the National Federation of Launderers was continued throughout the year.

P. & G. Sales Staff Changes

C. J. Bye and M. D. Murchie of Procter & Gamble, representatives on the west coast, have recently traded territories. Mr. Bye now has charge of the company's laundry and textile business in Northern California, Nevada and Utah. Mr. Murchie covers Southern California, Arizona and the rest of the Pacific Coast.

Oil Trades Election

The annual meeting and election of officers of the Oil Trades Association of New York is scheduled for Tuesday, March 24th, at the Waldorf-Astoria. This dinner meeting will be informal and free to members. Nominations for the coming year name the following slate: Rudolf G. Sonneborn, L. Sonneborn Sons, Inc., president; Charles V. Bacon, vice-president; Joseph C. Smith, Smith-Weihman Co., secretary; and Philip C. Meon, Borne Scrymser Co., treasurer.

Brillo Net Declines

Net profit of Brillo Manufacturing Co. for 1935 totaled $139,452 after Federal taxes, amortization and other charges, according to a financial statement just issued, comparing with $151,981 for 1934. Earnings amounted to 55c a share on the common in 1935 as compared with 62c in 1934.

New Coconut Oil Bill

A new bill has been introduced in Congress by Representative Edward A. Kenney of New Jersey which would remove all taxes from coconut oil, whether coming from the Philippines or elsewhere. It is not expected that the bill will receive early consideration as to date Congress has been reluctant to act on the modified tax repeal proposal advanced in the Guffey-Dockweiler Bill. Farm interests have opposed the Guffey-Dockweiler Bill, which would admit inedible coconut oil from the Philippines duty-free, but it is possible that before Congress adjourns it may receive more friendly consideration in view of the mounting number of injunctions in federal courts restraining collection of the tax.

On this latter point it is indicated that the U. S. Dept. of Justice has decided to appeal the adverse decision of the Cedar Rapids, Iowa, district in court in the suit brought by the Iowa Soap Co. The appeal will be taken to the Circuit Court of Appeals in St. Louis as a test case. The appeal is seen serving as an informal stay in the four other cases now pending, involving these taxes. These latter suits were filed by the Eldorado Oil Co., San Francisco; Haskins Soap Co., Omaha; Cincinnati Soap Co., Cincinnati, and Simonin Sons Co., Philadelphia.

Soap Employment Data

The index of employment in the soap industry, compiled monthly by the U. S. Dept. of Labor, registered a small decline in January, 1936, being calculated at 97.1 as compared with 97.3 for December, 1935. The comparable figure for January, 1935, was 99.1. The pay-roll index registered 94.9 for January, 1936, comparing with 94.6 in December, and 90.7 in January, 1935.

Rogers with Primrose

Preston P. Rogers has been named sales manager of Primrose House, Inc., New York. He has previously been in the retail field, having been connected with several department stores as buyer or merchandising manager.

STANDARD WARNER CHEMICALS

WARNER CHEMICAL COMPANY

Pioneer Producers 1886

CHRYSLER BUILDING
155 EAST SUPERIOR STREET, CHICAGO

NEW YORK CITY
70 RICKARD STREET, SAN FRANCISCO

DIVISION OF WESTVACO CHLORINE PRODUCTS.

Bon Ami Co. Net Lower

Net profit of Bon Ami Co. and subsidiaries for 1935 after depreciation. Federal taxes and other charges totaled $1,003,089, as compared with a net of $1,092,615 in 1934.

F. T. C. Checks Soap Seller

London House, Ltd., New York, engaged in the sale of a soap and brush kit, has signed a stipulation on request of the U. S. Federal Trade Commission agreeing to discontinue use of the words "By Kent of London," either independently or in connection with the words "Devon Milk Pre-Facial" or with its trade name "London House, Ltd.," so as to imply or have a tendency to mislead purchasers into the belief that this product is of English origin and imported into the United States when, according to the stipulation, the package is composed of parts which, with but one exception, are manufactured in the United States and not by Kent of London.

U. S. Soap Exports Up

American soap exports touched the lowest level recorded in recent years during 1934, but recovered substantially in 1935, increasing 15 per cent in quantity and 22 per cent in value, according to C. C. Concannon, chief of the chemical division of the U. S. Dept. of Commerce. Total exports of all classes of soaps from the United States aggregated 27,120,000 pounds, valued at $2,583,600, in 1935, compared with 23,541,000 pounds, valued at $2,108,400, for the preceding year. Practically every type of soap entering into export trade during 1935 shared in the gain, particularly toilet soaps of the better grades. American soap of one kind or another was sold to every country of the world during the year.

Shipments of toilet or fancy soaps to foreign countries aggregated 7,636,500 pounds, valued at $1,073,400, in 1935, compared with 5,324,000 pounds, valued at $773,500, during the preceding year. Exports of laundry soaps changed but little in quantity during the year, remaining at a little more than 12,000,000 pounds, but the value received increased about $38,000 over the 1934 figure to a total of $635,600 for the year. Shipments of other types of soaps to foreign markets in 1935 included medicated, $143,000; powdered and flaked, $102,700; shaving soaps and creams, $237,600; and scouring soaps, $251,700, it was stated.

Canada is the outstanding foreign market for American soaps, followed in order of importance by the Philippine Islands, British India, Panama, China, Haiti, and South Africa. The Philippine Islands, British India and Panama are outstanding as customers for American toilet soaps, and Canada, Haiti, and Dominican Republic are the largest foreign outlets for laundry soaps.

P & G $600,000 Bonus

Bonus payments totaling $600,000 have recently been made by Procter & Gamble Co. to workers in the United States and Canada under the company's profit sharing plan. In addition 7,000 workers will each receive a week's vacation with pay during the coming year. The profit sharing plan has been in effect for fifty years. Records indicate that since 1903 about $11,000,000 has been distributed to employees under the bonus plan.

Wheeler-Rayburn Act

The Wheeler-Rayburn Bill, now before Congress, is subjected to searching analysis in a recent article in the February 20th issue of *Printers' Ink* by C. B. Larrabee. The bill deals with suggested changes in the powers and duties of the Federal Trade Commission which Mr. Larrabee points out would greatly extend the authority of the commission which has been abridged since its initial formation by a number of Supreme Court decisions. Under the new bill the Commission would be given the power to intervene in "unfair or deceptive acts and practices in commerce," thus giving the F. T. C. power to look after the interests of consumers as well as those of competitors.

Zurn with Quaker Chemical

John M. Zurn, Jr., formerly connected with the E. F. Zurn Co., and the Quaker City Chemical Co., has become associated with the Quaker Chemical Products Corp., Conshohocken, Penna., as a member of the sales and technical staff. Mr. Zurn has had twenty years of practical experience in chemical products, particularly in the textile field.

Mercirex Advertising Agent

The Mercirex Company, Milford, Del., germicidal soap and ointment, has appointed Geare-Marston, Inc., Philadelphia and New York, as advertising counsel. Newspapers in principal cities and spot broadcasting will be used.

German Soap Exports Drop

Exports of soap and other detergent materials from Germany reached a maximum in 1930 with a total value of 30.8 million Reichmarks for that year. Since then the amount has diminished from year to year. In 1932 the value of exports had diminished by 30.5 per cent, in 1933, it decreased a further 24 per cent and in 1934 again by 14 per cent. The 1934 exports valued at 14.1 million Reichmarks therefore had about 46 per cent of the value of the 1930 exports. The same downward course continued during the past year. During the first 10 months of 1935 the exports amounted to a value of 8.7 million RM, compared with 12.2 million RM for the same period of the previous year, a decrease of 29 per cent. *Seifensieder-Ztg.* **63,** 35-6 (1936).

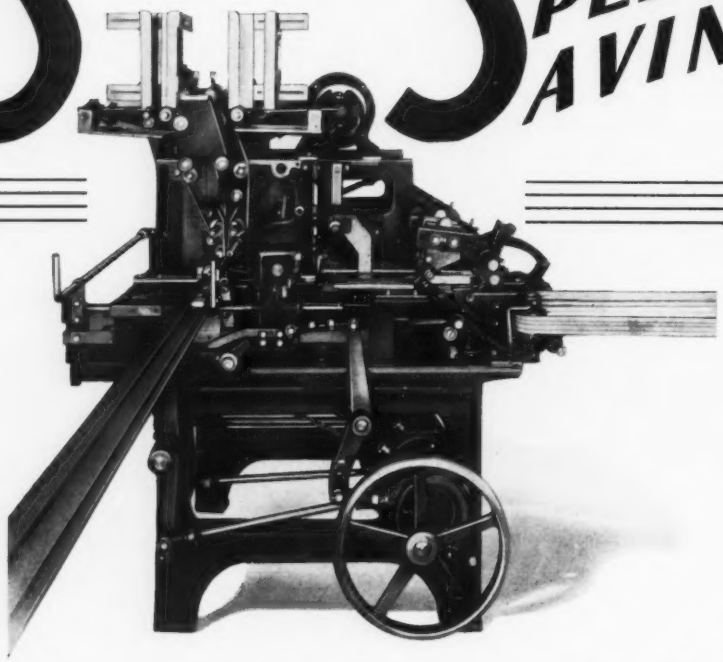
White King On Air

White King Soap Co., Los Angeles, has appointed Raymond R. Morgan Co., Hollywood, to direct its radio advertising. A network program is planned.

V. C. Products Moves

V. C. Products Co., Philadelphia, makers of dishwashing compounds, cleaners, and laundry detergents, moved recently to the Beury Building.

MODEL S FOR SPEED and SAVINGS



A few of the well known toilet soaps that are wrapped on our machines.

Leading Wrapping Machine in the Toilet Soap Field

The Model S has made a reputation in the toilet-soap field for speedy production—resulting in real savings in wrapping costs. Turns out 150 wrapped cakes per minute, which is about twice as fast as former machines it has replaced. This means utmost economy of labor and floor space.

The extremely neat wrapping it produces is in keeping with a fine quality product . . . And it has proved its dependability by its service in leading soap factories.

Can be fed directly from the soap press to the belt-feed conveyor on the machine.

By means of adjustments provided and the use of interchangeable parts, more than one size can be wrapped on the same machine.

In addition to this widely used machine, we have built special machines to meet particular requirements. Our long experience in serving soap manufacturers and our complete facilities should prove valuable to you in solving your wrapping problems. Consult our nearest office.

PACKAGE MACHINERY COMPANY
Springfield, Massachusetts
NEW YORK CHICAGO CLEVELAND LOS ANGELES
MEXICO, D. F., Apartado 2303
Peterborough, England: Baker Perkins, Ltd.
Melbourne, Australia: Baker Perkins, Pty., Ltd.

PACKAGE MACHINERY COMPANY
Over 200 Million Packages per day are wrapped on our Machines

Soap Leads to Arrest

Dwight M. Stewart, of Kansas City, was arrested Feb. 15th for carrying a cake of soap. It was the way he carried it, police said. It was molded into a ball and tied into the end of a sock—an effective bludgeon. Stewart said he carried it for protection. Authorities planned to charge him with carrying concealed weapons.

Offer New Organic Base

Rohm & Haas Co., Philadelphia, is now offering a new non-volatile organic base for general commercial use under the name "Tetrone B". It is described as a tetra substituted ammonium hydroxide of value in the manufacture of detergents, anti-oxidants, accelerators, etc. It is available in 40 per cent aqueous solution and may also be supplied in various organic solvents.

Raise Indian Copra Duty

Closely following the recent announcement of the decision of the Ceylon Government to impose a protective duty on copra, it has been announced that the Government of India has decided to increase the tariff on copra, coconut oil and fresh coconuts imported into India. The import duty on Ceylon coconuts will be raised from 28.50 to 40 rupees per thousands, the import duty on copra will be increased from 6 to 9 rupees per hundredweight, and the duty on coconut oil will be increased from 10 to 13 rupees per hundredweight. During 1935 India consumed 73 per cent of Ceylon's total exports of copra, 35½ per cent of its exports of coconuts and 21 per cent of its exports of coconut oil.

The coconut industry is one of Ceylon's three major industries, and there is strong resentment against these tariff increases. It is contended that the coconut produce of Ceylon is more than is required for internal consumption, whereas India's coconut produce is inadequate to satisfy her domestic requirements. The press maintains that the Government of India, in raising the tariff on coconut products, is pampering a comparatively small group of coconut growers in South India at the expense of large numbers of people in India who will be adversely affected by dwindling exports of their products to Ceylon.

Ertel Engineering Expands

For the third time within the last three years Ertel Engineering Corp., 120 East 16th St., New York, manufacturers of filters, tanks, mixers, fillers, etc., have found it necessary to add additional space to accommodate increasing business. The most recent move gives the company 18,000 square feet of space and will allow for complete centralization of offices, display room, machine shop and filter-sheet-making plant. A new display room has been fitted up allowing the full line of Ertel equipment to be kept on view and available for inspection. The company is headed by F. J. K. Ertel.

Glycerine Publicity

A news release reporting the results of test kitchen work on glycerine performed by Miss Helen Rees, food consultant, has recently been mailed by Ames & Norr, publicity firm, who are supervising the campaign being conducted by the Glycerine Producers Association. Another release will be mailed shortly giving a complete survey of the role of glycerine in medicine.

Root-Mandabach Move

Root-Mandabach Advertising Agency, 20 N. Wacker Drive, Chicago, has just taken new and larger quarters in the same building.

Sustain Diversey Patent

Diversey Corp., holder of U. S. Patents No. 1,734,706 and No. 1,962,821, covering their non-corrosive alkaline detergent, "Protex Metallum", has just won a suit brought in the U. S. District Court for the Northern District of Illinois against L. Carlton Merz operating as the L. Carlton Merz Co. The opinion handed down by Judge Walter C. Lindley was to the effect that the Patents had been infringed. In addition to directing an injunction, he ordered an accounting for damages and profits.

Advertising Research Group

Lee H. Bristol, Bristol-Myers Co., New York, was elected chairman of the newly formed Advertising Research Foundation at a meeting held February 11th at the Union League Club, New York. The research organization is a joint effort of the Association of National Advertisers and the American Association of Advertising Agencies. Its purpose will be to serve the common cause of advertising. Among the members of the official board is Ken R. Dyke, Colgate-Palmolive-Peet Co.

Dayton With J. B. Ford

Val Dayton has joined the J. B. Ford Company and will cover the northern New Jersey territory. Mr. Dayton has previously spent four years with Alden Speare's Sons Company and a year with Merchants Chemical Company.

Lever Builds in Toronto

A new three-story manufacturing plant will be erected by Lever Bros., Ltd., as an addition to its present factory on Eastern Ave., Toronto, Canada, according to P. Parnell Tyler, president of the Canadian division. Operations are scheduled to start in the early spring and it is expected that within a year the new unit will be ready to go into production, adding to present capacity. The company recently completed a three-story building in Winnipeg for use of its associated company, Royal Crown Soaps, Ltd.

Ready-to-use "AURA" Odors
AURA-ROSE
AURA-JASMIN
AURA-GARDENIA
AURA-FOUGERE
AURA-LILAC
Completely finished products containing all necessary fixation.
They have universal use.
Can be used in lotions, toilet waters, perfumes, creams, powders, bath salts, soap and better grades of hair pomades.
Use them as a base for your particular creations.
Send for a trial ounce—Seventy cents per ounce.
Only $7 per Lb.

AROMATIC PRODUCTS, · INC.

15 E. 30TH ST. NEW YORK CITY -- *FACTORY* - STAMFORD, CONN.

Contracts Awarded

St. Louis Soap

Iowa Soap Co., Burlington, Iowa, was awarded the contract for 49,400 cakes of floating toilet soap in a bidding conducted recently by the U. S. Army Quartermaster at St. Louis. Armour & Co. was granted the award on 100,200 lbs. ordinary laundry soap on a quotation of 3.42c and 3.2c. This same concern was given the award on 12,800 cans scouring powder on a bid of 2.22c.

Disinfectant Awards

Crystal Soap & Chemical Co., Philadelphia, was the recommended bidder on 4,000 gals. disinfectant for the U. S. Marine Corps., Philadelphia, in a recent bidding, with a quotion of 84.7c. White Tar Co. of N. J. was awarded the contract for 20,000 lbs. naphthalene at 6.75c.

Wax Bid to Good

Jas. Good, Inc., Philadelphia, was awarded a contract for 5,000 lbs. floor wax to be supplied to U. S. Marine Corps, Philadelphia, in a recent bidding. The successful quotation was 11.8c.

Insecticide Sprayers

The Supply Department of the U. S. Treasury Department, Washington, D. C., has recently awarded to Electric Sprayit Co. a contract covering three insecticide machines at $67.50 each.

Brooklyn Insecticide

The contract for 1,600 drums of insecticide for the Brooklyn Medical Department was awarded to R. M. Hollingshead Co., Camden, N. J., in a recent bidding on a quotation of $3.475.

Brooklyn Soap Awards

Awards for various soap products have been made as follows in a recent bidding conducted by the Brooklyn U. S. Army Quartermaster:

Colgate - Palmolive - Peet Co., 8,000 lbs. powdered soap, 7.95c; 3,000 lbs. do, 8.12c; 24,000 lbs. do, 8.35c; 4,500 lbs. do, 8.02c.

Procter & Gamble Distributing Co., 45,000 lbs. toilet soap, 7.01c; 375 lbs. white floating soap, 7.51c.

Kirkman & Sons, 625,000 lbs. laundry soap, 3.59c.

Day & Frick, 162,500 lbs. grit soap, 3.2c.

Conray Products Co., 200 lbs. soap, 8.7c.

Swift & Co., 15,000 lbs. laundry soap, 7.92c.

Paper Makers Chemical Co., 800 lbs. soap, 8.42c.

Buckeye Soda Co., 4,800 lbs. caustic soda, 5.45c; 2,400 lbs. do, 4.5c.

Unity Sanitary Supply Co., 40 lbs. laundry chip, 21c.

Am. Soap & Washaline Co., 5,000 lbs. powdered soap, 8.07c.

B. P. Ducas Co., 30,000 lbs. washing soda, 2.77c lb.

Good Low Soap Bidder

Jas. Good, Inc., Philadelphia, was low bidder on 500 doz. cakes grit soap for U. S. Post Office Department, Washington, in a recent bidding, with a quotation of 3.23c lb. Other bids and bidders were as follows: John T. Stanley Co., New York, 3.41c; Crystal Soap & Chemical Co., Philadelphia, 3.45c; and Unity Sanitary Supply Co., New York, 3.9c.

Sam Houston Soap

Armour & Co., San Antonio, Texas, have been awarded a contract covering 372,060 lbs. laundry soap for Fort Sam Houston, Texas, at a price of 3.66c. Newell-Gutradt Co., San Antonio, was the successful bidder on 22,000 cakes grit soap at 2.975 and 2.79c, and on 8,600 cakes additional at 2.83 and 2.39c.

Treasury Soap Bids

Iowa Soap Co. was low bidder on 40,000 lbs. laundry soap for the U. S. Treasury Dept., Washington, D. C., in a recent bidding with a quotation of 6.77c. Du Bois Soap Co. was low bidder on 20,000 lbs. soap powder with a quotation of 1.99c and on 40,000 lbs. soda ash with a bid of 1.256c. Merchant Chemical Co. was low bidder on 120,000 lbs. washing soda, quoting 1.36c.

Leppart Heads Salesmen

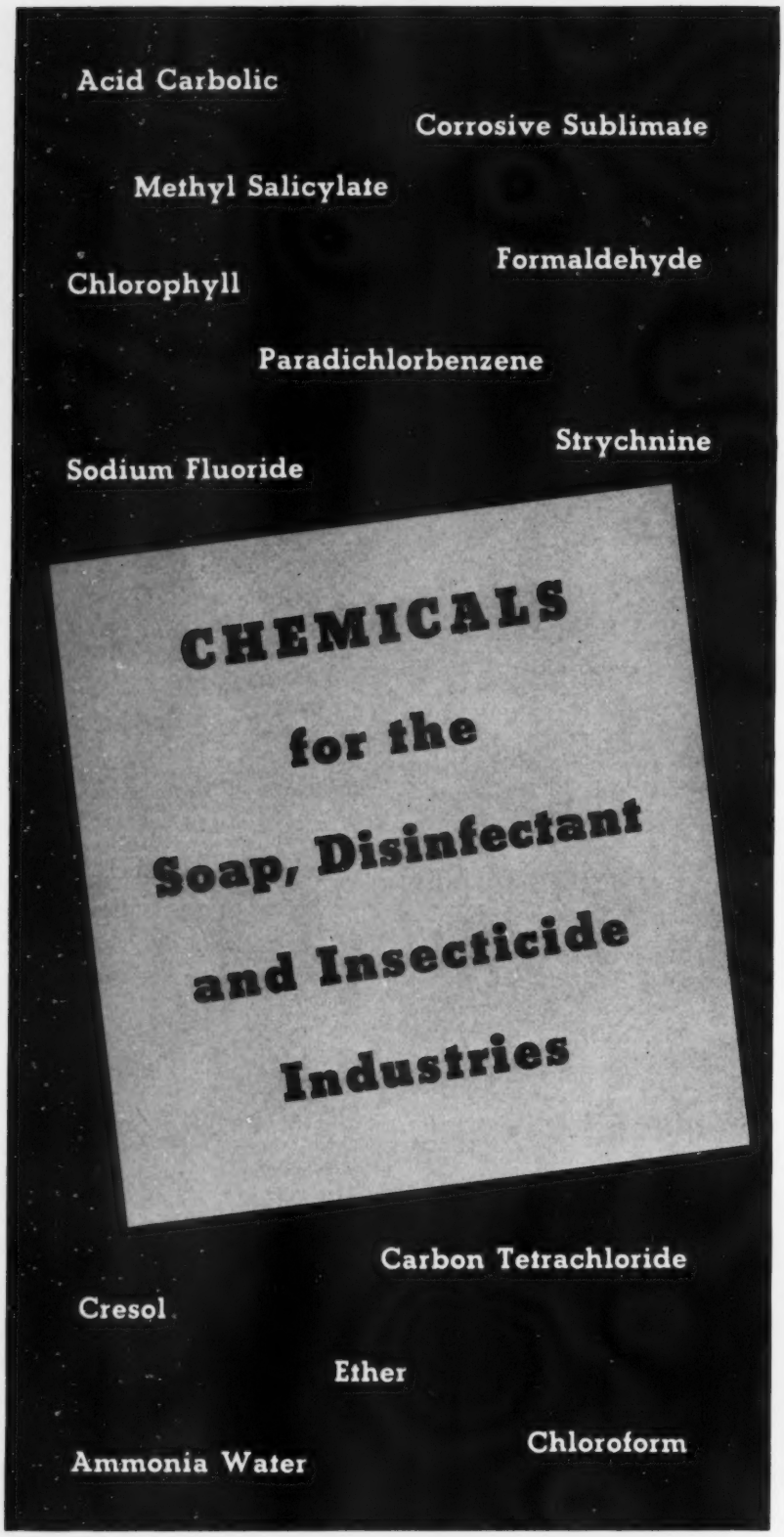
John C. Leppart of Columbia Alkali Company, New York, has been selected by the nominating committee of the Chemical Salesmen's Association as the nominee for president of the association over the coming year. Charles Lichtenberg, Commercial Solvents Corp., New York, was nominated for vice-president, Charles Kelly of Hagerty Bros., New York, for secretary and Walter Murphy, "Chemical Industries", for treasurer. New members of the executive committee include Walter Merrill, Joseph Turner & Co., New York, Joseph Wafer, Industrial Chemical Sales Co., New York, and DeWitt Thompson, Mathieson Alkali Works, New York.

Weber Heads Oil Group

Ferdinand Weber, treasurer of George Lueders & Co., New York, was elected president of the Essential Oil Association of United States at a recent meeting. Other new officers are: vice-president, Arthur D. Armstrong, secretary, Fritzsche Bros., Inc., New York; secretary-treasurer, Fred W. Stichweh, James B. Horner & Co., New York. Two new members were named on the executive committee: Harry S. Ryland, of H. C. Ryland, Inc., New York, and Kenneth Voorhees, of Ungerer & Co., New York. The following firms were elected to membership in the association: Aromatic Products, Inc., New York, Charles Fischbeck Co., Inc., New York, and Schimmel & Co., New York.

Filtrol Company Moves

Filtrol Company of California has moved its executive and sales offices in Los Angeles from 1755 Downey Road to suite No. 200 in the Metropolitan Building at 315 West Fifth Street, Los Angeles.



Perhaps you never realized it before, but the same laboratory that tests the prescription chemicals which are dispensed by thousands of pharmacists, is the same laboratory that controls the quality of Merck Chemicals for the Soap, Disinfectant and Insecticide Industries.

Here you have evidence establishing the fine quality of these Merck products. The rigid laboratory tests to which all materials are subjected insure uniform quality of the finished products.

Standardize your processes with Merck Chemicals, at no additional cost. You will find it is to your advantage to do so.

★ MERCK & CO. Inc. *Manufacturing Chemists* RAHWAY, N. J. ★

New York · Philadelphia · St. Louis · *In Canada:* Merck & Co. Ltd., Montreal · Toronto

New Trade Marks

The following trade-marks were published in the February issues of the *Official Gazette* of the United States Patent Office in compliance with Section 6 of the Act of September 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, fee of ten dollars must accompany each notice of opposition.

Trade Marks Filed

SOFTASILK—This in solid letters describing cleaner and powdered soap. Filed by Janvy, Inc., Brooklyn, April 28, 1934. Claims use since April 4, 1934.

VELVET SHAVE—This in solid letters with word "du Chaine's" describing brushless shaving cream. Filed by Du Chaine Laboratories, Menomonee Falls, Wis., Oct. 7, 1935. Claims use since Jan. 5, 1934.

FOUGERE—This in solid letters describing soaps and shaving cream. Filed by Houbigant, Inc., New York, Oct. 12, 1935. Claims use since 1899.

LEWISITE CLEANSER — This in solid letters describing cleanser. Filed by Harry R. Lewis & Co., Providence, R. I., Oct. 12, 1935. Claims use since May 6, 1935.

BUGERINE—This in shaded letters describing insecticide. Filed by Cahn Mfg. Co., Philadelphia, Nov. 26, 1935. Claims use since July 5, 1935.

TRI-OGEN—This in solid letters describing fungicides, insecticides and disinfectants. Filed by Rose Mfg. Co., Philadelphia, Dec. 4, 1935. Claims use since July 11, 1932.

UZ-IT — This in solid letters describing antiseptic and prophylactic preparations. Filed by Uz-It Distributors, Washington, D. C., Dec. 9, 1935. Claims use since Aug. 19, 1932.

42ND STREET—This in solid letters describing soaps, shaving cream, etc. Filed by Forty-Second Street Sales Co., Chicago, Nov. 18, 1935. Claims use since June 6, 1935.

FELS-NAPTHA SOAP CHIPS — This on carton describing soap. Filed by Fels & Co., Philadelphia, Dec. 6, 1935. Claims use since July 11, 1935.

KALAX—This in solid letters describing cleansers and soap powders. Filed by James J. Lax, New York, Dec. 7, 1935. Claims use since Nov. 20, 1934.

PUREX—This in solid letters describing drain openers. Filed by Purex Corp., Ltd., Los Angeles, Nov. 13, 1935. Claims use since May, 1933.

DIHEXYLIN—This in solid letters describing antiseptic and germicide. Filed by Parke, Davis & Co., Detroit, Dec. 2, 1935. Claims use since Nov. 2, 1935.

DOG-TEX—This in outline letters describing deodorant and stain remover. Filed by Consolidated Chemical Works, Chicago, Dec. 9, 1935. Claims use since Oct. 22, 1935.

MONARCH—This in solid letters together with photo of lion describing insecticide. Filed by The American Gypsum Co., Port Clinton, Ohio, Dec. 18, 1935. Claims use since Nov. 30, 1935.

VARNO—This in solid letters describing furniture and automobile polish. Filed by Albert R. Morrison, Pueblo, Colo., Oct. 7, 1935. Claims use since Sept. 15, 1909.

VEL-VET-TEEN—This in solid letters describing hand cleanser. Filed by Vel-Vet-Teen Co., Springfield, Mass., Aug. 26, 1935. Claims use since July 1, 1935.

ANGELUSTRE — This in solid letters describing shoe polish. Filed by Louangel Corp., New York, Dec. 31, 1935. Claims use since Dec. 21, 1935.

WORMGARD—This in solid letters describing insecticidal preparation. Filed by Thomas L. Cunningham, New York, Dec. 24, 1934. Claims use since Dec. 3, 1934.

MERCO—This in solid letters in form of shield describing laundry blue, laundry starch and disinfectant. Filed by Merchants Chemical Co., New York, Aug. 13, 1935. Claims use since May 18, 1935, on blue, since November, 1929, on starch and since November, 1930, on disinfectant.

FOME—This in outline letters with tops obscured by foam, describing shampoo. Filed by Avol Laboratories, Boston, Nov. 4, 1935. Claims use since Sept. 1, 1935.

PETROSOTE—This in solid letters describing bases for insecticides and disinfectants. Filed by Penola, Inc., Pittsburgh, Dec. 19, 1935. Claims use since Mar. 6, 1935.

VIT—This on oval shaped reverse plate describing shampoo. Filed by Vit, Inc., Minneapolis, Dec. 26, 1935. Claims use since Sept. 9, 1935.

RODOPELL—This in solid letters describing mixture for repelling rodents. Filed by Gustavus J. Esselen, Inc., Boston, Dec. 28, 1935. Claims use since Sept. 4, 1934.

Trade Marks Granted

332,144. Chemically Impregnated Cloths for Cleaning and Polishing. Wondrex Company, St. David's, Pa. Filed August 6, 1935. Serial No. 368,058. Published November 26, 1935. Class 4.

332,145. Soap in Bars, Soap Chips, Granulated Soap, Soap Powder, Scouring Cleanser. Colgate-Palmolive-Peet Co., Jersey City, N. J. Filed August 9, 1935. Serial No. 368,125. Published November 26, 1935. Class 4.

332,151. Toilet and Laundry Soaps, Soap Chips, Soap Powder, Granulated Soap, Soap Flakes, and Scouring Cleanser. Colgate-Palmolive-Peet Co., Jersey City, N. J. Filed August 22, 1935. Serial No. 368,561. Published Nov. 26, 1935. Class 4.

332,163. Shaving Cream. Walgreen Co., Chicago. Filed March 11, 1935. Serial No. 362,391. Published November 26, 1935. Class 4.

332,310. Furniture Polish and Floor Wax. Cardinal Laboratories, Inc., Chicago. Filed October 7, 1935. Serial No. 370,072. Published December 3, 1935. Class 16.

RÖHM & HAAS COMPANY

announces

TETRONE B

a stable non-volatile organic base

An Organic Base as strong as Sodium Hydroxide and possessing many unique properties.

A New Tetra-Substituted Ammonium Hydroxide now available in commercial quantities.

A few suggested applications are:

As a solvent for:

CELLULOSE
DYESTUFFS
METALS
METAL OXIDES

For saponification of:

OILS AND FATS
ESTERS
GUMS
WAXES

In the preparation of:

TETRONE CARBONATES
TETRONE PHOSPHATES
TETRONE RESINATES
TETRONE SILICATES
TETRONE SOAPS
TETRONE XANTHATES

For the synthesis of new

ACCELERATORS
ANTIOXIDANTS
ANTISEPTICS
DETERGENTS
INTERMEDIATES
PHARMACEUTICALS

Additional Tetrones are available to meet special requirements

Röhm & Haas Company, Inc.

222 WEST WASHINGTON SQUARE • PHILADELPHIA • PENNA.

331,982. Shaving Cream and Soap. Conrad Razor Blade Co., Long Island City, N. Y. Filed September 23, 1935. Serial No. 369,604. Published November 19, 1935. Class 4.

331,994. Polishes. S. H. Kress & Co., New York. Filed June 26, 1935. Serial No. 366,662. Published October 15, 1935. Class 16.

332,021. Detergent Compound. Lever Brothers Co., Cambridge. Filed September 28, 1935. Serial No. 369,816. Published November 19, 1935. Class 4.

332,046. Antiseptic, Cleansing Agent and Deodorant. San-O-Klenze Laboratories, New York. Filed July 30, 1935. Serial No. 367,845. Published November 19, 1935. Class 6.

332,047. Radiator Flushing and Cleansing Compound. Quaker Chemical Co., St. Paul. Filed July 30, 1935. Serial No. 367,837. Published November 19, 1935. Class 6.

332,402. Toilet Soap, Granulated Soap, Shaving Cream and Brushless Shaving Cream. Los Angeles Soap Co., Los Angeles. Filed October 18, 1935. Serial No. 370,518. Published December 3, 1935. Class 4.

332,471. Antiseptics. Thatcher Laboratories, Milwaukee. Filed September 28, 1935. Serial No. 369,835. Published December 3, 1935. Class 6.

332,478. Insecticide. Vestal Chemical Co., St. Louis. Filed September 23, 1935. Serial No. 369,637. Published December 3, 1935. Class 6.

332,481. Insecticide and Fumigant. Vestal Chemical Co., St. Louis. Filed September 23, 1935. Serial No. 369,636. Published December 3, 1935. Class 6.

332,489. Cleaning and Polishing Oils for Floors and Furniture. Hall Hardware Co., Minneapolis. Filed October 18, 1935. Serial No. 370,506. Published December 10, 1935. Class 16.

332,586. Anti-Moth Cake and Deodorant. Bordman Co., Philadelphia. Filed August 20, 1935. Serial No. 368,469. Published November 26, 1935. Class 6.

331,124. Cleaning Compound. Gem Products Sales Co., Camden, N. J. Filed August 14, 1935. Serial No. 368,296. Published October 15, 1935. Class 4.

331,137. Dentifrices. Good Humor Corporation of America, Brooklyn. Filed August 10, 1935. Serial No. 368,174. Published October 22, 1935. Class 6.

331,146. Polish. Morton Products, Bronx. Filed August 7, 1935. Serial No. 368,090. Published October 15, 1935. Class 16.

331,152. Antiseptic Cleaner for Telephone Mouthpieces. Telephone Hygiene Co., New York. Filed August 5, 1935. Serial No. 368,003. Published October 15, 1935. Class 6.

331,161. Fly Spray. Wesco Foods Co., Cincinnati. Filed July 25, 1935. Serial No. 367,692. Published October 15, 1935. Class 6.

HARDWATER SOAP SALES

Gimbel's Department Stores in four large cities sell something like five million bars of toilet soap during their annual "hardwater" soap sales, —all of it "Gimbel's tested." How they run these sales and what they do about testing will be told in the next issue of SOAP.

331,180. Cleaner. Firestone Tire & Rubber Co., Akron, Ohio. Filed July 10, 1935. Serial No. 367,125. Published October 22, 1935. Class 4.

331,184. Soap and Soap Flakes. Fitzpatrick Bros., Inc., Chicago. Filed August 26, 1935. Serial No. 368,690. Published October 22, 1935. Class 4.

331,201. Wall Paper Cleaner. Imperial Paper & Color Corp., Glens Falls, N. Y. Filed August 20, 1935. Serial No. 368,477. Published October 15, 1935. Class 4.

331,223. Germicide, Disinfectant, Antiseptic and Deodorant. Mer-Kil Products Co., Los Angeles. Filed August 26, 1935. Serial No. 368,699. Published October 22, 1935. Class 6.

331,266. Shaving Cream. Dasco Products Co., New York. Filed February 26, 1935. Serial No. 361,837. Published April 30, 1935. Class 4.

German Soap Exports Lower

After attaining a record peak in 1930, German soap exports have declined rapidly, particularly during 1935 and the two preceding years, according to a report from U. S. Consul Sydney B. Redecker, Frankfort-on-Main, made public by the Chemical Division of the U. S. Dept. of Commerce. The losses have been due almost entirely to smaller shipments of soap powders, flakes and toilet soaps, a group which formerly accounted for approximately 80 per cent of the total amount exported but has now decreased to less than one-half, the report states.

Total German exports of all classes of soap products amounted to only 9,380 metric tons, valued at 9,335,000 marks ($3,734,000) during the first eleven months of 1935, compared with 12,801 tons, valued at 12,880,000 marks ($5,152,000) during the whole of the preceding year. During the peak year of 1930 soap exports from Germany reached the high total of 22,153 metric tons, valued at 25,902,000 marks ($10,360,800), and for the three years 1929-31, sales to foreign countries averaged around 21,000 tons valued at 26,000,000 marks ($10,400,000) per annum, statistics show.

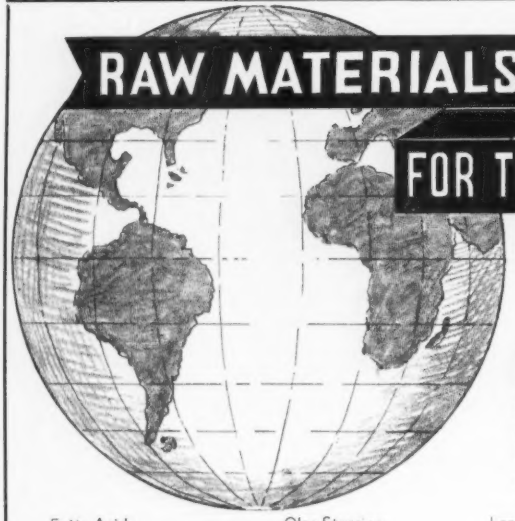
Germany's exports of common soft and liquid soaps, sold in bulk containers, however, have been well maintained in recent years, and hard grained laundry soap shipments have advanced steadily, according to the report. Export shipments of common soft and liquid soaps amounted to 3,369 metric tons, valued at 4,053,000 marks ($1,621,200), during the first eleven months of 1935 compared with 5,247 tons with an export value of 6,619,000 marks ($2,647,600) in 1931. Shipments of hard grained laundry soaps over this period advanced from 751 to 1,398 metric tons and the value received increased from 803,000 to 2,125,000 marks ($321,200 to $850,000), according to the report.

CITRONELLOL

will enliven the rose fragrance of your soap compound. Boiling point 225 to 226° C. Economical.

SCHIMMEL & CO., Inc.

601 WEST 26th STREET NEW YORK, N. Y.



RAW MATERIALS

FOR THE SOAP INDUSTRY

FROM ALL PARTS OF THE WORLD

COMMERCIAL OLIVE OIL

DISTRIBUTED by an organization that prides itself in making available to the makers and producers of high grade soaps the finest materials obtainable from the markets of the world. An organization whose sole object for five generations has been dependable standard of quality and service to an ever expanding industry.

Fatty Acids
Perilla Oil
Neatsfoot Oil
Coconut Oil
Cottonseed Oil
Palm Kernel Oil
Stearic Acid

Oleo Stearine
Soya Bean Oil
Palm Kernel Oil
Olive Oil Foots
Rapeseed Oil
Teaseed Oil
Castor Oil
Sesame Oil

Lard Oil
Palm Oil
Corn Oil
Peanut Oil
Grease (Animal)
Tallow
Red Oil
Soap Colors

Chlorophyll
Soda Ash
Sal Soda
Talc
Trisodium Phosphate
Caustic Potash
Carbonate of Potash
Bath Powder

Modified Soda
Caustic Soda
Silicate of Soda
Meta Silicate and Metso
"CEREPS" Superfatting Agent

WELCH, HOLME & CLARK CO., Inc.

563 GREENWICH STREET, NEW YORK CITY

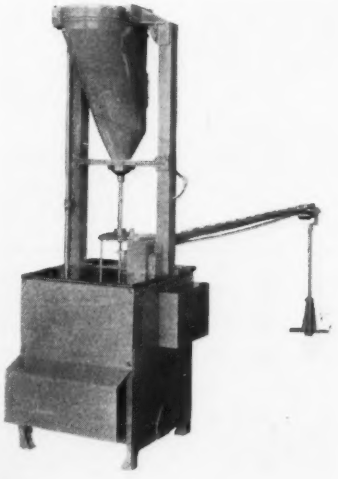
Established 1838

New Equipment

IF YOU want additional information on any of the items described below or if you want any of the bulletins, catalogs, etc., write to the MacNair-Dorland Co., Inc., 254 West 31st St., New York, mentioning the number of the item.

204—Powder Filler

Stokes & Smith Co., Philadelphia, has just developed a new rotary powder filling machine for small cans capable of filling 2,500



packages per hour. The rotary filling attachment can be disconnected from the machine when its use is not required, converting it into a standard filling machine for other types of containers such as jars, boxes, etc. Only one operator is required, the manufacturer states, and packages are removed by a conveyor.

207—Power Capper

Alsop Engineering Corp., New York, has recently developed a new and simplified portable power-operated screw capping machine. The new unit is said to be instantly adjustable for tightening screw caps of all types. The flexible shaft allows the operator to cap bottles within a large radius of the base. The base is equipped with a built-in motor, making the unit self-contained and readily portable.

205—New Capper

Ertel Engineering Corp., New York, has just brought out a new inexpensive capper which they say can be used on capping of any ordinary type with the minimum of physical effort. No wrist motion is required in use and different sized chucks for various type caps make the one capper suitable for any number of different capping jobs.

206—Splash Proof Motor

Imperial Electric Co., Akron, Ohio, has just announced a complete new line of splash-proof squirrel-cage motors in all ratings from ½ to 200 hp. The construction provides protection to the inner parts from splash or spray and yet permits proper ventilation by small openings in the bottom of the end brackets for the air in-take and louvres in the frame cover underneath the motor for the air exit.

Valentine Joins Patterson

Kenneth S. Valentine has become associated with the Patterson Foundry & Machine Co. of East Liverpool, Ohio, as district manager at New York in charge of the Metropolitan area and New England. Mr. Valentine was formerly sales manager for the Turbo Mixer Corp., New York, for eight years, prior to that being connected with the Heller & Merz Co. (now Calco), and Southern Dyestuffs Co. (now Monsanto). He is the author of numerous articles and books on mechanical mixing.

Filipino Coconut Trade

Coconut oil exports from the Philippines during 1935 totaled 163,824 metric tons or 11 per cent over the figure of the previous year, according to cable advice from the U. S. Trade Commissioner at Manila. All of this total but 1,350 tons went to the United States. Copra exports were 256,683 metric tons of which 211,386 tons went to United States. The total coconut crop is estimated as about the same as in the previous year. During the course of the year copra prices fluctuated between 6 and 14 pesos. The monthly average was 8.88 as compared with 4.28 in the previous year. Stocks of copra at the close of 1935 were 66,000 tons as compared with 64,000 tons at the beginning of the year. According to the report, crop prospects for the coming year appear good.

Publications

208—Social Security

A booklet dealing with the Federal Social Security Act and its adminstration has just been issued by LaSalle Extension University, Chicago. The author is William B. Castenholz of the university staff. The effect of the social security program both on the employer and the employee is analyzed, and general instructions are given as to the accounting and other records which will be necessary under the plan. Copies are available through the editorial office of *Soap*.

209—New Folder

H. H. Rosenthal Co., New York, suppliers of raw materials for the manufacture of soaps, insecticides, disinfectants, etc., has mailed a new folder commenting on their buying service. Copies are available.

210—Packaging Savings

Package Machinery Co., Springfield, Mass., has issued a new folder calling attention to the savings that can be made in packaging costs through substitution of machine methods for hand operations. Their new model FA adjustable wrapping machine is illustrated. Further information is available.

. . . a new source of supply for

ESSENTIAL OIL
AROMATIC CHEMICALS
PERFUME BASES
FLORAL ESSENCES

BACKED by 25 years in essential oils and perfuming materials which have enabled us to know thoroughly the best sources of supply. The sources from which we draw are world-wide, with quality safeguarded by our intimate knowledge of the business. Our analytical and control laboratories have been established to insure these standards of quality. The background of our personnel is evidence that we can, and will, serve you to advantage. Let us prove it!

CHARLES FISCHBECK CO., INC.
119 West 19th Street — New York

"Our Quarter-Century of Experience is your Protection"

RAW MATERIALS

ALCOHOL
AMMONIA
BLEACHING POWDER
BORAX
BICARBONATE OF SODA
CALCIUM CHLORIDE
CARBON TETRACHLORIDE
CAUSTIC SODA
CAUSTIC POTASH
DYES
DISODIUM PHOSPHATE
GLAUBERS SALTS
GLYCERINE
METASILCATE
OXALIC ACID
POTASSIUM CARBONATE
SAL AMMONIAC
SALT
SAL SODA
SILICATE OF SODA
SODA ASH
TRISODIUM PHOSPHATE

iEi

A CONVENIENT SOURCE OF SUPPLY
for the Soap and Allied Industries

Every raw material necessary for the manufacture of soap and allied products is carried in stock, and available at the right price for immediate delivery to your door.

Check over our list of raw materials and have us quote on your requirements.

(Members of New York Produce Exchange)

CAUSTIC SODA
CAUSTIC POTASH
liquid . . flake . . solid

CASTOR OIL
COCOANUT OIL
CORN OIL
COTTONSEED OIL
LARD OIL
NEATSFOOT OIL
OLEIC ACID-RED OIL
OLIVE OIL
OLIVE OIL FOOTS
PALM OIL
PALM KERNEL OIL
PEANUT OIL
RAPESEED OIL
ROSIN
SALAD OIL
SOYA BEAN OIL
SESAME OIL
TEASEED OIL
WHITE OLEINE
FATTY ACIDS
STEAMINE
STEARIC ACID
GREASE
TALLOW

COCOANUT OIL • TALLOW

EASTERN INDUSTRIES, INC.
VEGETABLE OILS, ANIMAL OILS, FATS, CHEMICALS
125 Bergen Street. — Harrison, N. J.

OLIVE OIL FOOTS • OLIVE OIL

Raw Material Markets

(*As of February* 24, 1936)

NEW YORK — Comparative quiet was reported in the market for soap and sanitary products' raw materials during the period just closed. Buyers were inactive and confined their purchases to small lots for immediate use, wherever possible, pending further developments in the national economic and political situation. Attention was being centered on Washington where legislative developments have the power, more than any other single factor, to alter costs either up or down.

In the oil and fat group the trend was downward both in domestic and imported fats and oils. Price changes were numerous in this list, but were not of severe proportions. Nevertheless, in view of the previous reductions last period, the sum total of the decline in the oil and fat list since the A.A.A. decision has been substantial.

In the chemical list cresylic acid and crude naphthalene were the strongest items, with both gaining in price due to reported shortages. In the insecticidal raw material field, pyrethrum was quoted lower in some quarters while extract prices were advanced. The explanation for this situation is found in the reports of lower quality of some pyrethrum arrivals, making it necessary for the extract manufacturer to use larger amounts of flowers to turn out products comparable to those prepared from last year's flowers.

In the perfuming material list the most important developments occurred in the aromatic chemical group. Under the threat of competition from foreign producers of musks and terpineol, domestic producers made sharp reductions in price on these articles to cut off the competitive threat before it developed. In the general list of oils, bergamot, citronella, geranium and peppermint oils were quoted higher, while reductions were announced in bois de rose, cassia, lemon and orange.

FATS AND OILS

Babassu Oil

Consumption of babassu oil in the soap industry seems to be increasing steadily, as soap makers are turning to this lower priced substitute whenever supplies are available. It is advantageously priced at current levels although at the moment the market is bare of spot stocks. Tank cars are quoted nominally at 7c per lb.

Coconut Oil

Coconut oil prices eased off this period in American markets owing to developments in competing soap fats. New York tanks of Manila oil dropped from 5 to 4⅝c per lb., with copra easing off from 2.8c to 2.65c. The international market remained firm, however, as reports came through that European interests are still active buyers of copra in world markets. Since the A.A.A. decision, coconut and palm oils have been less affected by the general price decline than any other soap making raw materials.

Corn Oil

Corn oil registered a further fractional decline during the period just closed and mill tanks of crude oil are now quoted at 9c. The market is not without its features of strength, however, as offerings have narrowed considerably at the lower level.

Grease

Grease quotations eased off further this period, with house and yellow grades falling from 5¼ to 4⅞c per lb. There was a fair inquiry, but users were disposed to purchase only minimum lots for prompt use.

Lard

Lard prices held relatively steady this period as reports from the middle west indicated that heavy shipments from producing areas were being checked. During the first half of February Chicago stocks increased 2,800,000 lbs. as compared with a decrease of 500,000 last year, but since that time later reports say that shipments are light.

Palm Oil

Quotations were unchanged this period in a quiet market. Offerings were reported as light. This soap oil, with coconut, is one of the few soap raw materials to be priced still at levels comparable to those quoted before the recent decline in the group of domestic fats.

Tallow

Tallow prices declined this period in the general downward movement. There was no pressure of offerings, the factor responsible for the decline being rather the very narrow buying interest in the market. At current levels city extra is quoted at 6¼c per lb. as against 6⅝c at the close of last period. Offerings of foreign tallow were light and imported stocks are still above a price parity with the domestic market.

CHEMICALS

Alkalis

Shipments of soda ash, caustic soda and caustic potash continued highly irregular this period as users pursued a hand-to-mouth policy of drawing out stocks against contracts. Withdrawals are being limited to actual current needs pending some clarification in the long-term business outlook. With the political campaign right ahead, it begins to look as if this tendency might be carried right through the year, possibly until after the coming fall election.

RELIABLE BASIC CHEMICALS

CAUSTIC POTASH 88-92% — Imported and Domestic. Flake — Solid — Granular — Broken — Walnut — Liquid. *Various packages.*

•

CARBONATE OF POTASH— Imported and Domestic. Calcined 96-98% — 98-100%
Hydrated 83-85% — Liquid 47-48%

•

CAUSTIC SODA—Prime 76%. Our own product. Flake — Crystal — Solid. *Various packages.*

•

ISCO SILVER TALC—From America's purest deposit. Noted for its uniform whiteness and excellence.

•

CHLORIDE OF LIME (Bleaching powder)

•

STEARIC ACID—Triple pressed. Low Iodine number.

•

BORAX—Powdered—Crystals—Granulated.

•

LANOLIN—WAXES—ZINC OXIDE — OLEIC ACID — AQUAPHIL

•

LARVACIDE (Chlorpicrin) The Safer—self-announcing Fumigant, for Insect and Rodent control.

ISCO CHEMICALS
ESTABLISHED 1891

INNIS, SPEIDEN & CO.

Industrial Chemicals Since 1816

117-119 Liberty Street **New York**

BOSTON, PHILADELPHIA, CLEVELAND, CHICAGO, GLOVERSVILLE, N.Y.

Factories: Jersey City, N. J. and Niagara Falls, N. Y.

BOOKS

Perfumes, Cosmetics and Soaps, by Poucher. New and revised edition of this standard reference. Volume I, a dictionary of raw materials, 394 pages, $6.50. Volume II, dealing with the manufacture of soaps, perfumes and toilet preparations, 406 pages, $9.00.

Modern Cosmetics, by Chilson. 400 pages of practical, usable information for the manufacturer of cosmetics. Formulas and manufacturing instructions for everything in the cosmetic line, $6.00.

The American Soap Maker's Guide, by Meerbott and Stanislaus. The most recent American publication on soap manufacturing. 750 pages, $7.50.

Henley's Twentieth Century Book of Recipes, Formulas and Processes. A handy reference book listing 10,000 miscellaneous formulas, including special sections for soaps, polishes, insecticides, etc. 800 pages, $4.00.

The Industrial Chemistry of Fats and Waxes, by Hilditch. A study of the fats and waxes in relation to their use in industry. 450 pages, $7.50.

Hydrogenation of Organic Substances, by Ellis. Latest revised edition of this well-known book, pre-eminent in the field of hydrogenation. 990 pages, $15.00.

Modern Soap and Detergent Industry, by Martin. Second edition. An outstanding contribution to the literature on soap manufacture. Thoroughly up-to-date work covering processes, apparatus and formulas. In two volumes—cloth binding, 6½ x 10½. Price $14.00 for each volume.

Modern Soap Perfumes, by Sedgwick. A practical handbook on the science of soap perfumery, $1.00.

Pyrethrum Flowers, by Gnadinger. A complete compilation of all known facts on pyrethrum; its history, sources, evaluation, chemistry and uses. The problems involved in the manufacture of pyrethrum products are given thorough and lucid exposition. 270 pages, $3.50.

Soaps and Proteins, Their Colloid Chemistry in Theory and Practice, by Fischer. 272 pages, $4.00.

"Soap". Bound volumes for years 1927-28 and 1935 available at $12.00 each.

Soaps, by Hurst. A practical manual of soap manufacture. 440 pages, $8.50.

Soap Blue Book. A Buyer's Guide, Catalog and Business and Technical Reference Book. 195 pages, $1.00.

Spray Process for Soap Powders, by Thomas. Full discussion of latest manufacturing processes. 72 pages, in German, $1.50.

Vegetable Fats and Oils, by George S. Jamieson. 444 pages. An American Chemical Society Monograph. Covering classification, occurrence, properties, analytical methods, etc., of vegetable oils, fatty acid and other derivatives; also production and refining methods, $6.50.

Chemistry of Laundry Materials, by D. N. Jackman. A new book for the laundry operator, containing valuable information on the chemistry of laundry materials. Discusses alkalies, soaps, bleaches, starches, also the newer detergents, synthetic soaps, etc. 230 pages, $2.50.

Owing to the large number of books supplied it is impossible to open accounts on individual book orders or to supply books on approval. Please send check with order.

MAC NAIR-DORLAND CO.

254 West 31st Street **NEW YORK CITY**

Coal-Tar Products

The cresylic acid market was in a confused state this period as users who had previously drawn out their full contract amounts at the old low levels allowed some of this material to be resold at prices slightly under the present contract level. Quantity prices are being firmly maintained at the advance, however, it is reported. Reports from abroad indicate that cresylic acid is in short supply there and no weakening in the general price level is looked for. Crude naphthalene is also in very short supply and reports from abroad indicate that this shortage may be more acute later in the season. A decree has recently been issued by the German government prohibiting the export of crude naphthalene because of a threatened national shortage there.

Pyrethrum

Several importers of pyrethrum report that considerable proportions of the 1935 crop which have been received up to date are of poor quality. One substantial importer of Japanese pyrethrum states that material which was guaranteed to test .9 pyrethrins does not come up to this mark and acceptance has been refused. The inferior flowers came from the Hokkaido section of Japan which annually supplies about 65 per cent of the Japanese crop. It is stated that the low grade flowers lack the characteristic pyrethrum smell and have a very poor appearance, besides testing below guaranteed levels. Damage by excessive rain or blight is given as the probable explanation for the low quality. It is pointed out further that flowers of this character are practically worthless for powder use and even when made into extract will not produce a satisfactory product unless substantial excess quantities over the amounts usually used are added to formulas.

PERFUMING MATERIALS

Aromatics

A number of price reductions were noticed in the aromatic chemical list this period, with some being of substantial proportions. Threatened by competition from foreign suppliers of musks and terpineol, domestic producers made sharp reductions in prices to shut off this competition before it could get started. Turpineol was dropped 7c per lb. to a basis of 23c and musk ambrette, ketone and xylol were each reduced 55c per lb. Other items in the aromatic list to be quoted lower included citral and diphenyl oxide.

Bergamot Oil

With higher cables coming in from abroad, bergamot oil prices were advanced 10c per lb. to a basis of $1.75. Reports were again current that the Italian Government was giving further consideration to the idea of a consortium to take complete charge of marketing this oil.

Cassia Oil

Cassia oil declined further this period, with the market now ranging from $1.05 to $1.10 per lb.

Cedar Leaf Oil

The sharply higher prices which were put into effect on cedar leaf oil last period held firm over the past few weeks and in some quarters quotations went even higher. It is reported that producers are handicapped not only by shortage of labor but by snow and ice as well. The result is that they are unable to deliver to dealers stocks previously contracted for.

Citronella Oil

Both Java and Ceylon citronella oil were quoted 2c per lb. higher this period, Java now being quoted at 27 to 28c and Ceylon at 22 to 23c.

Geranium Oil

Cables reported a substantial advance in the price of Algerian geranium oil this period. The spot market here is now up 50c per lb. as a result, with the range being from $5.25 to $6.75 per lb. Bourbon oil has also been advanced in recent weeks and is now held at $5.50 to $7.00.

Fourth Quarter Fat Output

Fat production figures as given out by the U. S. Bureau of the Census are as follows for the 4th quarter of 1935: Vegetable oils, 950,783,967 pounds; fish oils, 108,078,048 pounds; animal fats, 319,916,272 pounds; and greases 68,941,805 pounds—a total of 1,447,720,092 pounds. Production, consumption, stocks and imports of some of the more important soap oils are reported in the following tables:

Kind	*Factory Operations for the Quarter ended Dec. 31, 1935* — *Production (Pounds)*	*Consumption (Pounds)*	*Factory and Warehouse Stocks Dec. 31, 1935 (Pounds)*
VEGETABLE OILS			
Cottonseed, crude	572,478,390	515,892,814	131,842,842
Coconut or copra, crude	84,509,030	135,073,396	127,904,102
Corn, crude	29,531,242	38,891,919	12,941,674
Olive, inedible		2,631,145	2,637,628
Sulphur oil or olive foots		8,253,520	18,092,890
Palm-kernel, crude		16,238,829	28,403,737
White	8,641,016	6,932,825	6,553,668
Yellow	15,326,998	13,409,276	14,619,312
Brown	13,859,616	12,637,609	15,176,548
Tallow, inedible	107,527,408	172,674,242	295,644,496
Red oil	10,001,664	7,021,140	5,459,246
Stearic acid	5,803,487	3,027,751	5,706,948
Glycerin, crude 80% basis	32,218,791	35,025,178	8,473,954
Glycerin, dynamite	11,970,719	5,185,142	14,102,491
Glycerin, chemically pure	18,191,791	2,830,560	14,529,493
Acidulated soap stock	28,195,120	18,584,173	43,493,048
Miscellaneous soap stock	343,456	337,384	556,672

FATS AND OILS IMPORTED FOR CONSUMPTION, QUARTER ENDED DECEMBER 31, 1935

Kind	*Pounds*	*Kind*	*Pounds*
Coconut oil	98,162,016	Whale oil	8,020,170
Palm oil	80,749,211	Oleic acid or red oil	292,341
Sulphur oil or olive foots	9,836,203	Stearic acid	804,968
Tallow, inedible	38,873,536	Glycerin, crude	1,943,711
Palm-kernel oil, inedible	7,203,564	Glycerin, refined	6,434

SOLVAY

TRADE MARK REG. U. S. PAT. OFF

PRODUCTS

SODA ASH
CAUSTIC SODA
CAUSTIC POTASH

Liquid — Solid — Flake

•

LIQUID CHLORINE

Contract or Spot Delivery

In tank cars and multiple unit cars

•

Write for Prices

SODA ASH . CAUSTIC SODA . AMMONIUM CHLORIDE
CHLORINE . MODIFIED SODAS . CALCIUM CHLORIDE
Salt . Caustic Potash . Ammonium Bicarbonate . Causticized Ash . Para-Dichlorobenzene
Sodium Nitrite . Potassium Carbonate

•

SOLVAY SALES CORPORATION

Alkalies and Chemical Products Manufactured by The Solvay Process Company

40 RECTOR STREET NEW YORK

Boston, Syracuse, Chicago, Indianapolis, Cleveland, Cincinnati, Pittsburgh, Detroit, Philadelphia, Kansas City, Houston, St. Louis, Charlotte, New York

KRANICH SOAPS

LIQUID SHAMPOO BASE
Coco Oil 60%
Olive Oil 60%
Natural, Opal, Green

•

LIQUID SOAPS
Coconut..10%-15%
20%-40% Concentrate
Colored and Perfumed

•

SCRUBBING SOAPS
Pine-Sassafras
Plain

•

LIQUID SHAMPOOS
Coconut Oil-30%-45%
Olive Oil-30%
Castile-30%

•

POWDERED SOAPS
Castile U.S.P.
Coco Castile 50-50
Pure Coconut
Pure Palm

•

POTASH SOAPS
Soft and Hard
U.S.P. 9th and 10th

•

HARD AUTO SOAPS

Kranich Standard Soaps are manufactured and produced entirely in our own factory. All our oils and fats are processed and purified before use. All alkalies are dissolved and settled to remove impurities. All our processes are technically supervised and a chemical analysis made on all finished products to assure satisfaction to our trade.

KRANICH SOAP CO., Inc.

54-60 RICHARDS ST., BROOKLYN, N.Y.

Raw Material Prices

(*As of February* 24, 1936)

Minimum Prices are for car lots and large quantities. Price range represents variation in quotations from different suppliers and for varying quantities.

Chemicals

Acetone, C. P., drums	lb.	$ .11	$ .12½
Acid, Boric, bbls., 99½%	ton	95.00	100.00
Cresylic, drums	gal.	.51	.53
Low boiling grade	gal.	.64	.65
Oxalic, bbls.	lb.	.11½	.12¼
Adeps Lanae, hydrous, bbls.	lb.	.16	.18
Anhydrous, bbls.	lb.	.17	.19
Alcohol, Ethyl, U. S. P., bbls	gal.	4.13	4.25
Complete Denat., SD 1, drums, ex.	gal.	.33	.43
Alum. Potash lump	lb.	.03¼	.03½
Ammonia Water, 26°, drums, wks	lb.	.02½	.02¾
Ammonium Carbonate, tech., bbls	lb.	.08	.12½
Bleaching Powder, drums	100 lb.	2.25	2.60
Borax, pd., cryst., bbls., kegs	ton	50.00	55.00
Carbon Tetrachloride, car lots	lb.	—	.05¼
L. C. L.	lb.	.07	.08½
Caustic, see Soda Caustic, Potash Caustic			
China Clay, filler	ton	10.00	25.00
Cresol, U. S. P., drums	lb.	.11	.11½
Creosote Oil	gal.	.11½	.12½
Feldspar (200 to 325 mesh)	ton	14.00	15.00
Formaldehyde, bbls.	lb.	.06	.07
Fullers Earth	ton	15.00	24.00
Glycerine, C. P., drums	lb.	.14	.14½
Dynamite, drums	lb.	.13¾	.14½
Saponification, drums	lb.	.10¼	.11½
Soap lye, drums	lb.	.09¼	.09½
Hexalin, drums	lb.	—	.30
Kieselguhr, bags	ton	—	35.00
Lanolin, see Adeps Lanae.			
Lime, live, bbls.	per bbl.	1.70	2.20
Mercury Bichloride, kegs	lb.	.71	.76
Naphthalene, ref. flakes, bbls.	lb.	.06¾	.07
Nitrobenzene (Myrbane) drums	lb.	.09	.11
Paradichlorbenzene, bbls., kegs	lb.	.16	.25
Petrolatum, bbls. (as to color)	lb.	.02	.07¼
Phenol, (Carbolic Acid), drums	lb.	.14¼	.16
Pine Oil, bbls	gal.	.59	.64
Potash, Caustic, drums	lb.	.06¼	.06½
Flake	lb.	.07	.07¼
Potassium Carbonate, solid	lb.	.07¼	.09½
Liquid	lb.	.03½	.03¾
Pumice Stone, powder	100 lb.	3.00	4.00
Rosins (600 lb. bbls. gross for net)—			
Grade B to H, basis 280 lbs.	bbl.	4.70	5.75
Grade K to N	bbl.	5.85	6.00
Grade WG and X	bbl.	6.25	6.90
Wood	bbl.	4.25	5.70
Rotten Stone, pwd. bbls.	lb.	.02½	.04½
Silica	ton	20.00	27.00
Soap, Mottled	lb.	.04⅛	.04⅜
Olive Castile, bars	lb.	.13	.19
powder.	lb.	.23	.30
Olive Oil Foot	lb.	.07	.07½
Powdered White, U. S. P.	lb.	.19	.21
Green, U. S. P.	lb.	.06½	.08
Tallow Chips	lb.	.07¼	.07¾
Whale Oil, bbls.	lb.	.05	.06
Soda Ash, cont., wks., bags, bbls.	100 lb.	1.23	1.50
Car lots, in bulk	100 lb.	—	$1.05
Soda Caustic, cont., wks., sld	100 lb.	—	2.60
Flake	100 lb.	—	3.00
Liquid, tanks	100 lb.	—	2.25
Soda Sal., bbls.	100 lb.	1.10	1.30
Sodium Chloride (Salt)	ton	11.40	14.00
Sodium Fluoride, bbls	lb.	.07¼	.08¾
Sodium Hydrosulphite, bbls	lb.	.19	.20
Sodium Silicate, 40 deg., drum	100 lb.	.80	1.20
Drums, 52 deg. wks.	100 lb.	1.35	1.75
Tar Acid Oils, 15-25%	gal.	.21	.24
Trisodium Phosphate, bags, bbls	lb.	.03	.03½
Zinc Oxide, lead free	lb.	.06	.06¼
Zinc Stearate, bbls	lb.	.20	.22

Oils — Fats — Greases

Castor, No. 1, bbls.	lb.	.10¼	.11
No. 3, bbls	lb.	.09¾	.10½
Coconut			
Manila, tanks, N. Y.	lb.	—	.04⅝
Tanks, Pacific coast	lb.	—	.04⅜
Cod, Newfoundland, bbls.	gal.	.40	Nom.
Copra, bulk, coast	lb.	—	.0265
Corn, tanks, mills	lb.	.09	.09¼
Cottonseed, crude, tanks, mill	lb.	—	.08¼
PSY	lb.	—	Nom.
Degras, Amer., bbls.	lb.	.05¼	.06
English, bbls.	lb.	.08¾	.10
Neutral, bbls.	lb.	.08	.11
Greases, choice white bbls., N. Y.	lb.	.05⅜	.07⅜
Yellow	lb.	.04⅞	.05⅛
House	lb.	.04⅞	.05⅛
Lard, City	lb.	.11¼	.11½
Compound tierces	lb.	.11½	.11¾
Lard Oil,			
Extra, bbls.	lb.	—	.11
Extra, No. 1, bbls.	lb.	—	.09
No. 2, bbls.	lb.	—	.08½
Linseed, raw, bbls., spot	lb.	.1000	.1040
Tanks, raw	lb.	—	.0940
Boiled, 5 bbls. lots	lb.	—	.1120
Menhaden, Crude, tanks, Balt.	gal.	.36	Nom.
Oleo Oil, No. 1, bbls., N. Y.	lb.	—	.12½
No. 2, bbls., N. Y.	lb.	—	.12
Olive, denatured, bbls., N. Y.	gal.	.76	.78
Foots, bbls., N. Y.	lb.	.08¼	.08⅜
Palm	lb.	.04⅞	.05
Palm Kernel, casks, denatured	lb.	.04¾	Nom.
Peanut, domestic tanks	lb.	.08¾	Nom.
Red Oil, distilled bbls.	lb.	.09⅝	.10⅝
Saponified bbls.	lb.	.09⅝	.10⅝
Tanks	lb.	—	.08¾
Soya Bean, domestic tanks, N. Y.	lb.	—	.08
Stearic Acid,			
Double pressed	lb.	.09½	.10½
Triple pressed, bgs.	lb.	.12¼	.13¼
Stearine, oleo bbls.	lb.	.08¼	.08½
Tallow, special, f.o.b. plant	lb.	—	.06⅛
City, ex. loose, f.o.b. plant	lb.	—	.06¼
Tallow, oils, acidless, tanks, N. Y.	lb.	—	.08¼
Bbls., c/l N. Y.	lb.	—	.08¾
Whale, refined	lb.	.07¾	.08

VICTOR

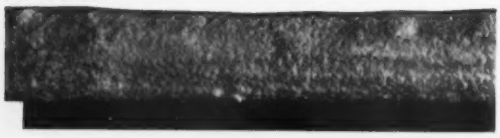
CHEMICAL WORKS

141 West Jackson Blvd.

CHICAGO

A brilliant white, free-flowing and non-caking tri-sodium phosphate of uniformly high quality. Four grades as illustrated.

POWDERED



turner

CAUSTIC POTASH

FLAKE	SOLID	LIQUID
88/92%	88/92%	45%

CAUSTIC SODA

FLAKE SOLID LIQUID

For Manufacturers of

SOAPS, OIL SOAPS,
DRY CLEANING SOAPS,
LIQUID SOAPS AND
TEXTILE SPECIALTIES

•

Turner Caustic Potash and Caustic Soda may be given any test you choose. Produced under a rigid system of control, they are doubly checked in the process of manufacture.

Turner chemicals are uniform and of the highest standard . . . backed by years of thorough and dependable service . . . yet priced to meet competition.

•

Write for details and prices

JOSEPH TURNER & Co.

500 Fifth Avenue • New York

83 EXCHANGE PL., PROVIDENCE, R. I.

Suppliers of Chemicals for over 70 years

(*As of February* 24, 1936)

Essential Oils

Almond, Bitter, U. S. P.	lb.	$2.00	$2.50
Bitter, F. F. P. A.	lb.	2.25	2.75
Sweet, cans	lb.	.58	.60
Anise, cans U. S. P.	lb.	.50	.55
Apricot, Kernel, cans	lb.	.22	.25
Bay tins		1.25	1.50
Bergamot, coppers	lb.	1.75	2.00
Artificial	lb.	1.00	1.30
Birch Tar, rect. tins	lb.	.70	.75
Crude, tins	lb.	.14	.16
Bois de Rose, Brazilian	lb.	1.25	1.40
Cayenne	lb.	2.30	2.50
Cade, cans	lb.	.26	.30
Cajuput, native, tins	lb.	.50	.60
Calamus, tins	lb.	3.25	3.50
Camphor, Sassy, drums	lb.	—	.16
White, drums	lb.	—	.17
Cananga, native, tins	lb.	2.65	2.75
Rectified, tins	lb.	2.95	3.10
Caraway Seed	lb.	1.95	2.20
Cassia, Redistilled, U. S. P.	lb.	1.05	1.10
Cedar Leaf, tins	lb.	.90	1.10
Cedar Wood, light, drums	lb.	.18	.22
Citronella, Java, drums	lb.	.27	.28
Citronella, Ceylon, drums	lb.	.22	.23
Cloves, U. S. P., tins	lb.	.95	1.00
Eucalyptus, Austl., U. S. P., cans	lb.	.32	.34
Fennel, U. S. P., tins	lb.	1.00	1.25
Geranium, African, cans	lb.	5.25	6.75
Bourbon, tins	lb.	5.50	7.00
Hemlock, tins	lb.	.70	.80
Lavender, U. S. P., tins	lb.	3.25	7.00
Spike, Spanish, cans	lb.	1.20	2.00
Lemon, Ital., U. S. P.	lb.	1.30	1.75
Lemongrass, native, cans	lb.	.55	.60
Linaloe, Mex., cases	lb.	1.35	1.50
Nutmeg, U. S. P., tins	lb.	1.20	1.35
Orange, Sweet W. Ind., tins	lb.	2.25	2.30
Italian cop	lb.	2.10	2.75
Distilled	lb.	—	.75
Origanum, cans, tech.	lb.	.70	.75
Patchouli	lb.	5.25	6.00
Pennyroyal, dom.	lb.	1.65	1 90
Imported	lb.	1.30	1.40
Peppermint, nat., cases	lb.	2.15	2.30
Redis., U. S. P., cases	lb.	2.40	2.55
Petit, grain, S. A., tins	lb.	1.00	1.15
Pine Needle, Siberian	lb.	.90	.95
Rose, Natural	oz.	5.50	18.00
Artificial	oz.	2.00	3.00
Rosemary, U. S. P., tins	lb.	.34	.45
Tech., lb. tins	lb.	.30	.40
Sandalwood, E. Ind., U. S. P.	lb.	5.00	5.50
Sassafras, U. S. P.	lb.	.75	1.00
Artificial	lb.	.46	.47
Spearmint, U. S. P.	lb.	1.40	1.50
Thyme, red, U. S. P.	lb.	.58	1.02
White, U. S. P.	lb.	.65	1.10
Vetivert, Bourbon	lb.	11.00	12.50
Ylang Ylang, Bourbon	lb.	4.60	7.00

Aromatic Chemicals

Acetophenone, C. P.	lb.	$1.25	$2.25
Amyl Cinnamic Aldehyde	lb.	1.75	2.50
Anethol	lb.	1.00	1.10
Benzaldehyde, tech.	lb.	.60	.65
U. S. P.	lb.	1.20	1.30
Benzyl, Acetate	lb.	.56	1.00
Alcohol	lb.	.65	1.15
Citral	lb.	2.30	2.40
Citronellal	lb.	2.05	2.50
Citronellol	lb.	2.10	2.65
Citronellyl Acetate	lb.	4.50	7.00
Coumarin	lb.	3.10	3.30
Cymene, drums	gal.	.90	1.25
Diphenyl oxide		.85	1.25
Eucalyptol, U. S. P.	lb.	.50	.55
Eugenol, U. S. P.	lb.	2.00	2.50
Geraniol, Domestic	lb.	.90	2.00
Imported	lb.	2.00	3.00
Geranyl Acetate	lb.	2.00	2.50
Heliotropin	lb.	2.00	2.10
Hydroxycitronellal	lb.	3.50	9.00
Indol, C. P.	oz.	2.00	2.50
Ionone	lb.	3.60	6.50
Iso-Eugenol	lb.	3.00	4.25
Linalool	lb.	1.65	2.25
Linalyl Acetate	lb.	1.85	4.25
Menthol	lb.	3.50	3.60
Methyl Acetophenone	lb.	2.50	3.00
Anthranilate	lb.	2.15	3.20
Paracresol	lb.	4.50	6.00
Salicylate, U. S. P.	lb.	.40	.45
Musk Ambrette	lb.	4.20	5.00
Ketone	lb.	4.35	5.25
Xylene	lb.	1.25	2.00
Phenylacetaldehyde	lb.	4.80	8.00
Phenylacetic Acid, 1 lb., bot.	lb.	3.00	4.00
Phenylethyl Alcohol, 1 lb. bot.	lb.	4.00	4.50
Rhodinol	lb.	5.75	8.00
Safrol	lb.	.54	.57
Terpineol, C. P., 1,000 lb. drs.	lb.	.23	.25
Cans	lb.	.27	.30
Terpinyl Acetate, 25 lb. cans	lb.	.80	.90
Thymol, U. S. P.	lb.	1.40	1.50
Vanillin, U. S. P.	lb.	3.75	4.00
Yara Yara	lb.	1.30	2.00

Insecticide Materials

Insect powder, bbls.	lb.	.17	.18
Concentrated Extract			
5 to 1	gal.	1.25	1.30
20 to 1	gal.	4.25	4.50
30 to 1	gal.	6.25	6.45
Derris, powder—4%	lb.	.40	.42
Derris, powder—5%	lb.	.24	.48
Cube, powder—4%	lb.	.34	.37
Cube, powder—5%	lb.	.40	.42

Gums

Arabic, Amb. Sts.	lb.	.10¼	.10¾
White, powdered	lb.	.13¼	.13¾
Karaya, powdered No. 1	lb.	.09½	.10
Tragacanth, Aleppo, No. 1	lb.	1.20	1.25
Sorts	lb.	—	.25

Waxes

Bees, white	lb.	.34	.36
African, bgs.	lb.	.24	.25
Refined, yel.	lb.	.28	.30
Candelilla, bgs.	lb.	.16	.17
Carnauba, No. 1	lb.	.46	.47
No. 2, yel.	lb.	.45	.46
No. 3, chalky	lb.	.36	.37
Ceresin yellow	lb.	.36	.38
Paraffin, ref. 125-130	lb.	.04¼	.04½

FOR YOUR SOFT PASTE SOAP — BENETCO STEEL BARRELS

Benetco Drums with Removable Covers are ideal for the shipment and storage of Soaps, Polishes, Fats, Greases, etc.

They are easy to fill and seal—and equally as easy to open and remove contents (Threaded opening for *Solutionizers* can also be furnished).

Product Safety—Filling and Dispensing convenience and Practical utility, make these drums practical for both you and your customers.

We also manufacture a complete line of Pails & Drums—½ to 65 gallon sizes—furnished in plain colors or COLORFULLY LITHOGRAPHED.

PROTECTIVE INTERIOR LININGS are available in containers for chemicals and other products requiring them.

Write for Catalog "MODERN STEEL CONTAINERS." No obligation to you.

WILSON & BENNETT MFG. COMPANY

GENERAL OFFICES AND FACTORY—6528 SO. MENARD AVE., CHICAGO

Eastern Office and Factory
353 Danforth Ave.
Jersey City, N. J.
Phones—Delaware 3-4700 Cortlandt 7-0231

Southern Office and Factory
Cortez and Bienville Sts.
New Orleans, La.
Phone—Galvez 2171

Sales Offices and Warehouses in Principal Cities

CRESYLIC ACID

AROMATICS

PHENYL ETHYL ALCOHOL	BENZYL ACETATE
GERANIOL	BENZYL ALCOHOL
CITRONELLOL	BENZOPHENONE
ACETOPHENONE	AMYL CINNAMICALDEHYDE

For Soaps, Perfumes, Cosmetics, etc.

AMERICAN-BRITISH CHEMICAL SUPPLIES, Inc.

180 Madison Ave., New York, N. Y.

ASSOCIATED COMPANIES

KAY-FRIES CHEMICALS, INC. NEW YORK, N. Y.

CHARLES TENNANT & CO. (CANADA) LTD. TORONTO, CANADA

Build German Whalers

The first German whaling fleet in 75 years is now reported to be under construction in shipyards in Bremerhaven and Hamburg. The fleet should have a capacity production of 30,000 tons of whale oil per season, although the experience of Norwegian whalers indicates that only about 35 per cent of capacity production is to be counted on. The purpose of the whaling fleet is to increase the German production of fats and stock food, in both of which domestic production falls far short of supplying the consumption. The expected whale oil production will not materially affect the fat situation, which requires imports of about 900,000 tons of fats and oils per annum.

Cotton Oil Stocks

Stocks of crude cottonseed oil on hand in United States as of Jan. 31, 1936, amounted to 128,018,470 lbs., as compared with 102,045,384 lbs. a year previously. Stocks of refined oil were 453,990,342 lbs. on Jan. 31, 1936, as compared with 516,802,658 lbs. Jan. 31, 1935.

Pompeian Appoints Palmore

Pompeian Mfg. Co., Bloomfield, N. J., has named W. B. Palmore as its Pacific Coast sales representative.

Ph. Chaleyer Moves

New York offices and laboratories of Ph. Chaleyer, Inc., perfuming materials, were moved March 1st to 160 East 56th St. The new phone number is Plaza 3-8618.

A campaign of extermination directed against rats and insects has recently been mapped by the Soviet Government.

Ten Years Ago

John D. Larkin, president and founder of the Larkin Co., died at his home in Buffalo, N. Y., at the age of 81. John D. Larkin, Jr., was elected president of the company to succeed his father.

The plant of the Harral Soap Co., Richmond Hill, Brooklyn, was destroyed by fire March 5, with a loss of $90,000.

Suit of the Andrew Jergens Co., Cincinnati, against the Bonded Products Corp., Brooklyn, to compel the latter to cease manufacturing soaps under the Woodbury label for William Woodbury came up for trial on March 22nd in the U. S. District Court in Brooklyn.

Gold Dust Corp. moved from its Gutenburg, N. J., plant to its new $200,000 factory in Baltimore. The Gutenberg plant was acquired by Lever Bros., who offered it for sale.

Procter & Gamble Co. completed its annual bonus distribution. A total of $500,000 was shared among 3,531 employees.

Harris Soap Co. was incorporated in Buffalo, N. Y.

M. Lemmermeyer of the firm of Lumm & Lemmermeyer, perfume materials, Chicago, was transferred to New York City.

Joseph N. Pigot of Pigot, Sayre Co., New York, was elected president of the Oil Trades Association of New York at the annual meeting held at the Waldorf-Astoria.

New Fritzsche Fixative

A new group of fixatives have recently been introduced by Fritzsche Bros., Inc., New York, under the name "Durofix F. B." The new fixatives are said to contain no water soluble acids and are not saponifiable by ordinary methods, making them particularly suitable for soap use. Their fixation properties are said to be unaffected even after incorporation in strongly alkaline soap.

The annual banquet and dance of the employes of Fritzsche Brothers, Inc., New York, was held February 21 in the grand ballroom of the Hotel New Yorker. Executives and employes from the New York office numbering 150 attended. The function marked the 65th year in business of Fritzsche Brothers. The only speaker was F. H. Leonhardt, president of the company, who extended a brief welcome to those attending.

. . . *if you buy*

ROSIN

. . . *read this!*

A NEW and better ROSIN suitable for the manufacture of soaps, disinfectants, and associated products, . . . available at competitive prices . . . clean, clear, and much easier to handle.

We are now producing at our Covington, Va. plant, large quantities of rosin in the form of ABIETIC ACID. It is available as a yellow crystalline powder with the following specifications:

Melting Point.....Approximately 120° C.

Acid Number 185

Abietic Acid Content 88-92%

Let us send you samples, prices and further details. Send us the coupon below.

INDUSTRIAL CHEMICAL SALES CO., INC.

230 PARK AVE. **NEW YORK**

INDUSTRIAL
CHEMICAL SALES CO.
230 Park Ave., New York

Gentlemen:—We are interested in your new rosin (abietic acid).

Please send us .....oz. sample and prices.

.....

.....

.....

SOAP

Also the manufacturers of

INDUSOIL

The standard blend of fatty acids.

NUCHAR

The superior bleaching and deodorizing carbon.

PRODUCTION SECTION

A section of SOAP devoted to the technology of oils, fats, and soaps published prior to Jan. 1, 1932, as a separate magazine under the title, *Oil & Fat Industries*.

Catalysis in Soap Manufacture

By **HAROLD SILMAN**
London, England

CATALYSTS and catalytic processes have found application in every branch of manufacture, and the soap industry is no exception to this rule. A catalyst may be defined briefly as a substance which is capable of modifying the rate at which a chemical reaction takes place without itself undergoing any permanent change. It should be noted particularly that a catalyst cannot of itself initiate a reaction or change the nature of the end products in any way. To discuss the theory of catalysis here would be impossible, but it may be said that the evidence shows that in a great number of cases, catalysts act by providing molecular nuclei wherein condensation of the reacting molecules takes place so that they are brought in close proximity to one another, whilst in others unstable intermediate compounds are formed which readily decompose and thus cause the reaction to take place quicker than it would do otherwise.

On the other hand there are certain catalysts which retard the rate of chemical reactions, sometimes to an infinite extent, so that the reaction cannot occur at all. These are termed negative catalysts. Typical examples are the action of phenolic bodies in retarding the autoxidation of aldehydes and of many oils, the prevention of the decomposition of hydrogen peroxide by the addition of barbituric acid or phenacetin, and the preservative action of certain salts in soap, and so on.

There are numerous aspects of soap technology in which catalytic processes are able to play an important part, both directly and indirectly. Of the indirect applications, the methods of hydrogenation by which low grade malodorous oils may be converted into hard, white and stable fats suitable for conversion into soaps are perhaps the most important. In the hydrogenation process use is made of the catalytic effect of various finely divided metals, notably nickel, in the presence of which unsaturated oils such as whale and fish oils can add hydrogen atoms in their molecules, to produce stable saturated fats. Although nickel is most commonly used in hydrogenation, the catalytic action of palladium and platinum in this connection is even better, but the relative cost of these metals limits their use somewhat, especially as extremely good results are obtained by the use of nickel.

The finely divided nickel is produced by the reduction of the oxide with hydrogen, the best results being obtained when the hydrated oxide is reduced at a temperature of less than 280° C. At this temperature complete reduction to the metal does not take place. This is desirable since it has been shown that the partially reduced oxide is a more active catalyst than the completely reduced metal. Exposure to air lowers the efficiency of the catalyst as does also the presence of traces of sulfur, phosphorus, halogens, ammonia, and oxides of nitrogen, all of these being well-known catalyst poisons. On the other hand an oxide catalyst is not as sensitive to the poisoning action of sulfur and halogens as the metal itself.

On an industrial scale the oil is heated to a temperature of about 280° C. or lower, depending on the particular method employed, and brought into intimate contact with the catalyst and the hydrogen gas. About 0.5 per cent of catalyst is required, and is either introduced alone, or deposited on pumice so as to provide a greater surface upon which the reaction takes place. In another method granulated nickel is put into the oil heated to 180° C., and water gas passed quickly into the liquid. Nickel carbonyl is thus formed which is decomposed with the formation of a very finely divided metal. Subsequently, hydrogen is passed in and rapid hydrogenation of the oil takes place.

In large-scale hydrogenation, certain precautions must

be taken. In the first place any free acid in the oil must be neutralized with either calcium carbonate or dilute soda solution to prevent the catalyst being attacked, and for the same reason the operation should be conducted at as low a temperature as possible to prevent decomposition of the albuminoids in the oil which would have the effect of producing acids. The refined oil is then freed from water, which would cause hydrolysis, and the product treated with hydrogen under a pressure of from 2 to 10 atmospheres until the required degree of hydrogenation has been obtained. The hot liquid is filtered from the catalyst, which is then ready for re-use.

Hydrogenation has provided the soap-maker with a complete range of new fats; for example the hydrogenation of linseed oil which melts at about —16° C., yields an oil which is odorless and solid melting at 68° C. Hydrogenation is also applied to the production of solid fatty acids of the stearic type from liquid oleic acid.

PERHAPS the best known application of catalysis in the soap industry is in the direct production of soap by neutralization of the free fatty acids. This process is only rendered possible by the development of methods for the rapid hydrolysis of fats to the free fatty acid and glycerin. This is based upon the well-known work of Twitchell who, while investigating the hydrolysis of fats by means of mineral acids, came to the conclusion that as an intermediate stage in the hydrolysis of a fat, a fatty acid sulfonate was produced, which in turn decomposed to liberate the free fatty acid and glycerin. On these lines he found that this, in fact, was the case and that sulfonated stearic and oleic acids were active catalysts in promoting the hydrolysis of fats.

Further investigation led to the discovery that the presence of an aromatic nucleus in the catalyst rendered it more effective. In order to produce a catalyst of this type the method used is to mix molecular proportions of oleic acid and an aromatic compound (benzene, phenols, naphthalene, etc.) and heat with sulfuric acid; on washing free from acid with water, a sticky mass is obtained which dissolves in water to form a colloidal suspension. Among the best catalysts of this type are naphthalene stearo-sulfonic acid, $C_{10}H_6.(SO_3H).C_{17}H_{34}.COOH$, and phenol stearo-sulfonic acid, $C_6H_3.OH.(SO_3H).C_{17}H_{34}.COOH$.

As prepared in the above manner the product only contains some 50 per cent of active substance, and it is therefore preferable to convert the acid into a salt of magnesium, aluminium or one of the alkaline earth metals. This converts the sticky acid into a dry stable powder which may be re-activated as and when desired by treatment with the appropriate amount of mineral acid. The naphthalene fatty acid gives the greatest catalytic effect and appears to promote the most rapid hydrolysis, but para-cymene and naphthenic acid derivatives have their advocates as giving lighter colored fatty acids.

More recent work on the catalytic values of various sulfonates in hydrolytic processes has shown that the naphthalene derivatives are not only better catalysts, but also promote the emulsification of the mixtures more readily than the corresponding phenolic compounds. The presence of 0.1 per cent of normal sulfuric acid generally increases the emulsifying powers, whilst in some instances the color of the fatty acids obtained can be considerably improved by previously heating the fat for about an hour with 2 per cent of sulfuric acid of 60° Be.

Progress in the development of the technique of fat-splitting has made the present-day process greatly superior to the earlier methods, and it is now possible to obtain light-colored fatty acids, so that the soap as finally made is light in color and as hard in texture as that obtained by other means. The Twitchell Process is particularly suitable for works where fatty acids are distilled, as in such cases low-grade fats can be converted into high-grade fatty acids suitable for the manufacture of good quality soaps.

IN the Twitchell Process the splitting of the fat is best carried out in two stages, first hydrolyzing to a stage of 85 per cent, and then further hydrolyzing this until 95 per cent conversion has been obtained. The reason for this is that the water in the final stages should be low in glycerin content in order to insure that the reaction goes to completion. As the reaction is a reversible one the presence of any considerable amount of the products of the reaction is likely to prevent it going to completion. To obtain a white product it is not only necessary to neutralize acid, as has already been mentioned, but it is also desirable to minimize contact with iron as far as possible, since absorption of iron salts in small amount may cause a very great darkening in color. An effective bleaching agent for the fatty acids in certain cases where they are dark is zinc formaldehyde sulfoxylate, added in the proportion of .1 or .2 per cent during the final stages.

In the saponification itself the use of fatty acids instead of fats enables the process to be carried out with the cheaper sodium carbonate instead of caustic alkali. Saponification is best carried out by making a solution of 80 to 85 per cent of the total alkali required in twice its weight of hot water. Half of this is run into the soap pan and the fatty acids added slowly, agitating continuously by passing live steam and compressed air through the mass. Salt is added, about 2 per cent being adequate usually, although with some oils (palm kernel, etc.) it is advisable to increase the proportion of salt to about 5 per cent. The remainder of the fatty acid is then run in and the rest of the carbonate added, preferably in such a way that it remains concentrated near the surface and does not sink to the bottom of the vat. Care should be taken that while this is being done, the contents of the pan do not boil over owing to the evolution of carbon dioxide gas. When the evolution of gas has practically ceased, the saponification is finished off

by the addition of the correct amount of caustic soda solution of 30° Be.

The fatty acid process of saponification is especially useful in the production of soft soaps, as the method allows a large proportion of glycerin to be recovered. It also finds extensive application in the manufacture of oleic acid soaps for textiles, various shaving soaps, and so on.

THE other chief method for the splitting of fats is that making use of the catalytic activity of enzymes, first introduced in 1902 by Connstein and his collaborators. The method is based upon the well-known fact that when vegetable oils are left to stand in the presence of moisture, they gradually decompose into fatty acids and glycerin, owing to the action of the lipase in the protoplasm of the seed from which the oil is extracted.

The exact nature of enzymes is not known, except that they are highly complex substances produced in the life processes of plants and animals which are capable of catalyzing specific chemical reactions. Each type of enzyme will only catalyze its own particular type of reaction, and no other. They are exceedingly powerful in their action, and by means of enzymes it is possible to cause reactions to proceed quite rapidly at ordinary temperatures which can only be made to take place otherwise by the aid of high temperatures and strong acids.

Fat-splitting enzymes are termed lipases, and on a commercial scale the enzyme used is that obtained from the castor oil seed. The enzyme itself is not soluble in water, but in the presence of fatty acids it is capable of being emulsified. The ferment is extracted by freeing the seed from cortex, grinding up with a small amount of cottonseed or castor oil, and using directly. Better results can be obtained by means of an anhydrous extract of the castor seed ferment, and this can be prepared by extracting the seed with anhydrous ether. Here again, the enzyme itself is insoluble in ether, but when the solvent contains any fat, the enzyme enters into a colloidal suspension with it. The emulsion used consists, as a rule, of about 38 per cent of ricinoleic acid, 4 per cent of albuminous matter and 58 per cent of water. The enzyme readily brings about the hydrolysis of glycerides, although it has but little effect on the esters of monohydric alcohols, since the alcohol produced appears to have a poisoning effect on the enzyme. Similarly it has been shown that the castor seed lipase cannot bring about the hydrolysis of the glycol esters obtained from cotton seed oil. On the other hand it is possible to obtain an enzyme extract from the celandine seed which will hydrolyse these esters, and has, moreover, twice the activity as a corresponding weight of castor seed lipase.

The superiority of the fermentation process as a means of obtaining fatty acids is based upon the high grade quality of the fatty acids produced. The resulting soaps are therefore as light in color generally as those produced by direct saponification of first quality fats. The vegetable fats, such as palm and coconut oils, are most easily split by means of enzymes, but if animal fats are to be used the amount of ferment must be greater whilst the process takes somewhat longer to carry out. When the fermentation process is carried out with red palm oil, the fatty acid so produced is colored, but by subsequent bleaching considerable improvement in the color can be brought about.

THE hydrolytic process may be divided into three parts: (1) the decomposition, (2) the separation of the layers of fatty acid and glycerin and (3) the treatment of the intermediate emulsified layer consisting of fatty acids, water and glycerin. The hydrolysis is carried out in closed vessels, the oil being agitated by means of compressed air, whilst the mass is maintained at a temperature of 30 to 40° C. by means of live steam passed into the vat. Low melting fats are best treated at the lower temperature, but in no case should the temperature be allowed to exceed 40° C. or the enzyme (which is very sensitive to heat) will be destroyed and no further hydrolysis will occur. Even a rise of only a few degrees may be sufficient to render the ferment inactive, and this point should be borne in mind when comparatively high-melting fats are being treated, as the safety margin can then be quite narrow. While the fat mixture is being vigorously agitated 0.2 per cent by weight of manganous sulfate is added, dissolved in warm water. The presence of this salt provides the appropriate acidity in which the enzyme functions best so that the decomposition can start rapidly.

The addition of the enzyme follows, the amount required varying with the nature of the fats used. Experiment shows that the amount necessary for a given rate of reaction is directly proportional to the saponification number of the fat, and inversely proportional to its molecular weight. This means that more enzyme will be required in the hydrolysis of a fat of high saponification number or of low molecular weight. It may be said that, in general, an oil such as linseed oil will require 4-5 per cent of enzyme, cottonseed oil, 6-7 per cent, palm oil, 8 per cent, while other fats may require as much as 10 per cent of enzyme.

After the enzyme has been added the mixture is allowed to stand for half an hour, and then stirred vigorously so that a homogeneous emulsion is produced. The reaction sets in and proceeds quite rapidly for the first few hours, slowing down gradually. By periodical titration it is possible to follow its course, and as a rule 80 per cent of the fat is decomposed within about 24 hours. On more prolonged standing it is possible to obtain a mixture containing from 85 to 90 per cent of fatty acids.

Separation of the fatty acids is effected by raising the temperature by means of steam to 80° or 90° C., stirring vigorously for 2 hours, and then adding 0.2 or 0.3 per cent of sulfuric acid of 66° Be. diluted in its own volume of water. Separation begins almost immediately, and on

(Turn to Page 73)

Metaphosphate Solutions

SODIUM hexametaphosphate is widely used both in America and Europe because of its ability to form complexes with alkaline earth metals and so prevent the precipitation of insoluble calcium and magnesium compounds. An attempt to develop a method for determining ortho- pyro- and hexametaphosphate in the presence of isomers of hexametaphosphate led to an investigation of the stability of metaphosphate solutions under various conditions. One per cent solutions of a commercial preparation containing 88 per cent of sodium hexametaphosphate and 12 per cent of acid sodium pyrophosphate, were used in the study.

Sodium hexametaphosphate is decomposed by water. The speed of decomposition increases rapidly with temperature and varies inversely with hydrogen-ion concentration. Cold solutions, even when weakly acid, are relatively stable. They can be kept for several days, probably several weeks, without alteration. At boiling temperatures, dilute solutions are decomposed completely in 4 to 5 hours.

Decomposition of hexametaphosphate takes place in two ways, both of which cause it to lose its power of combining with calcium and magnesium ions. The two forms of decomposition are apparently independent of one another. The first is hydrolysis, with the formation of monosodium orthophosphate as a final product. The speed of this type of decomposition increases rapidly with temperature and acidity. At 100°C., and in the presence of free sulfuric acid, the transformation to orthophosphate is complete in 1 hour. The second type of decomposition is an isomeric transformation into one or several metaphosphates of indeterminate degrees of polymerization. The speed of this change also increases with temperature, but it is promoted by an alkaline rather than an acid medium.

Several samples of the commercial product from American, French and German sources were analyzed and found to contain from 9 to 16 per cent of acid sodium pyrophosphate, $Na_2H_2P_2O_7$. This may have been formed from monosodium orthophosphate as an original ingredient, or from pyrophosphate. The resulting product gave a reaction of pH 5.5 to 6.4. It was thought that pyrophosphate might have been added to metaphosphate as a stabilizer, but a study of this point showed that pyrophosphate did not have a stabilizing action.

Some practical pointers resulting from this study are that metaphosphate solutions should be renewed after being used at high temperatures. To avoid too rapid a decomposition it is preferable to work with alkaline solution and to keep the temperature to 70°C. or below. Trisodium phosphate or soda ash are suggested as excellent additions to provide a mild degree of alkalinity. Best results are obtained with liquors of low saline content. If metaphosphate is to be used in hot baths, the recommended practice is to bring the bath to the desired temperature, and then introduce the metaphosphate at the last moment. It should be added in the form of a concentrated solution which was prepared cold. Louis Germain. *Chimie & Industrie* **35,** 22-6 (1936).

Sulfonated Textile Assistants

An attempt was made to evaluate the sulfonated compounds used by the textile industry, in terms of their sulfur trioxide content, by various comparative tests. These included a study of their stability toward hydrochloric acid, sulfuric acid, alkalies, salt, hard water (using calcium chloride), their ability to improve leveling in dyeing, wetting-out, and emulsifying ability. The conclusion was reached that more and better methods for comparing the value of these compounds, are needed. The results indicate however, that oils having equal fat value are more efficient, the greater their sulfur trioxide content. Albert H. Grimshaw. *Am. Dyestuff Reporter* **25,** P35-42 (1936).

Saponification Curve of Fats

In the first phase of saponification the curve does not correspond to a unimolecular or bimolecular reaction, but after 10 minutes at 30° C. the reaction becomes strictly bimolecular. This is due either to alcoholosis or to a more rapid saponification of glycerides of low molecular weight. Adulteration can be detected by determining the lowering of conductivity in 20 minutes of the system fat-alcohol-potassium hydroxide at 30° C. Fats high in saturated acids of C_4, C_{12} and C_{14} chaims, or in unsaturated acids are saponified more rapidly than fats high in palmitic and stearic acids. Increased acidity diminishes the speed of saponification. R. Strohecker. *Z. Unters. Lebensm.* **69,** 521 (1935).

Acetylation of Fats

Determination of the acetyl number of fats was studied by the use of three different methods. These were briefly: A, refluxing with acetone and petroleum ether or ethyl ether; B, warming the substance dissolved in acetone containing a small amount of sulfuric acid to a temperature not over 45°C., dissolving the reaction product in ether, washing the ether solution successively with an aqueous 50 per cent acetic acid solution, a saturated salt solution containing potassium bicarbonate, and a plain saturated salt solution. The ether solution was then dried with anhydrous sodium sulfate, the ether distilled off, and the residue dried over sulfuric acid in a vacuum. C, the substance was heated on the water bath with an excess of acetone and a small amount of pyridine, the reaction mixture poured into water, the acetylated product taken up with ether and treated further as outlined under method B.

Method B gave the most readily reproducible and most nearly

theoretical results with tetrahydroxystearic acid, hexahydroxystearic acid and dihydroxystearic acid, Methods A and C being inferior. The three methods gave fairly concordant results with castor oil but not with grapeseed oil. Method B is recommended as being most suitable for fat investigations. K. Taufel, M. de Mingo and H. Thaler. *Fettchem. Umschau* **42,** 141-4 (1935).

Synthetic Fatty Acids

An important fat substitution in the U. S. Soviet Russia is replacement of natural fats by the mixtures obtained by the air of oxidation of purified petroleum. The difficulty is that besides ordinary fatty acids, hydroxy carboxylic acids also are obtained, which interfere with their application in soap manufacture. In order to separate the hydroxy carboxylic acids, heat treatment has been applied. In one method 15 parts of potash soap made from the synthetic fatty acids were mixed with 85 parts of dilute caustic potash and heated in an autoclave in an atmosphere of hydrogen 290-293° C. The mixture was removed after three-quarters of an hour and acidified to set free the fatty acids. The original mixture contained 16.5 per cent of unsaponifiable matter and 36 per cent of hydroxy carboxylic acids. After heating the mixture contained 24 per cent of unsaponifiable matter and 12 per cent of hydroxy carboxylic acids. Another treatment was to heat 22 parts of calcium soap with 78 parts of benzine to 250-292° C. The hydroxy carboxylic acids were reduced from 43 to 25 per cent in this case. *Deutsche Parfumerie-Ztg.* **22,** 16 (1936).

New Book on Fats

Verlag Julius Springer, Vienna, Austria, has just published a new volume entitled "The Chemistry and Technology of Fats and Fat Products." The author is Julius Springer and the text is in German. The book is some 900 pages long, profusely illustrated, paper bound, and is priced at 145 RM.

Glycerine Soaps

TRUE glycerine soaps—this does not refer to cold-process soaps which always contain some glycerine,—give a quick-forming, fine foam and are non-irritating to the skin. Only the very best grade of raw materials should be used in preparing this type of soap. A beautifully transparent soap can be obtained from the following formula:

	Parts
Tallow	30
Coconut oil	30
Castor oil	20
Caustic soda, 38° Bé.	40
Glycerine	20
Alcohol	30
Sugar	8
Water, distilled	12

Melt the fat mixture by bringing it to a temperature of 70°C. In a double-walled steam-heated vat. Add in a fine stream with constant stirring a mixture containing the caustic soda and glycerine and 2-3 parts of alcohol. The latter is to promote rapid saponification. Turn on the steam and continue stirring after the addition of the alkali. After the volume begins to increase it is necessary to stir strongly to prevent too great an increase, discontinuing the steam until the volume subsides.

Let the soap stand for a half hour to an hour after the reaction appears to be complete. Test with phenolphthalein. If too alkaline, add warm coconut oil, mix and let stand as before. If not sufficiently alkaline add more caustic. When the right reaction is obtained, add the remainder of the alcohol and the sugar solution, stir well and let stand covered for 20-30 minutes. A sample of soap removed at this stage should be clear when cold and should give a pink color with phenolphthalein. If the sample remains turbid and soft, it lacks alkali, which must be added in alcohol and stirred in well. Cover again for 10 minutes and again sample. If the sample is turbid but hard, it lacks water, which must be added mixed with alcohol. Soap should not be heated after sugar has been added, or a dark color may result. If the sample is clear but gummy, the trouble is with the fat composition which is lacking in hard fat. To correct this, add hot stearine with the necessary amount of alkali. Add perfume and color and run into forms for setting. The quicker it sets, the better the appearance. Let stand 2-3 weeks before cutting. *Seifensieder-Ztg.* **63,** 57-9 (1936).

Danger of Starch in Soaps

A difficulty encountered with starch-filled soap is that under the conditions frequently existing in the laundry, that is increased temperature and alkalinity of the wash liquid, reducing compounds may be formed from the starch. These compounds reduce vat dyes to a soluble form, so that clothes colored with such dyes may lose their color. For example the leuco form of indigo, which belongs in this class, is colorless, that of Hydron Blue is yellow. The original blue colors are restored by oxidation. Starch-filled soaps must therefore be used with caution in the laundry. Edmund Walter. *Seifensieder-Ztg.* **63,** 56-7 (1936).

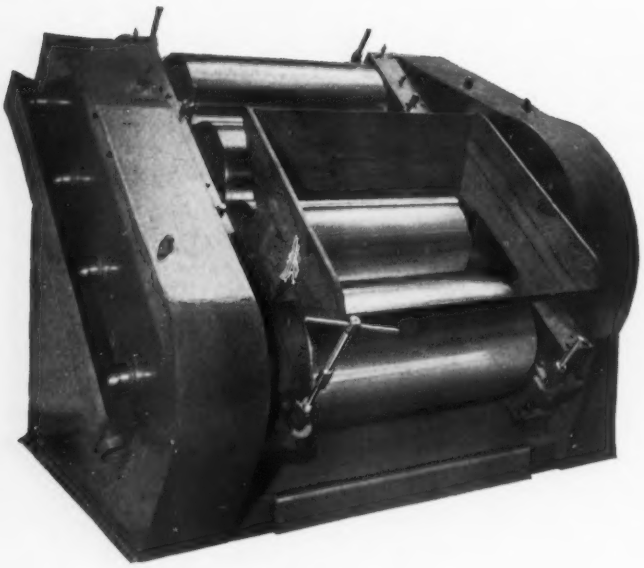
Acid Number of Oils

A new method for the determination of the acid number of oils omits the use of alcohol and ether. Weigh a sample of oil in a tall narrow-necked flask, add 15-20 cc. of aqueous 10 per cent salt solution and titrate with 0.1 *N* potassium hydroxide solution to a phenolphthalein end-point. The faint rose color should not disappear for 1 minute with energetic shaking. The method gave good results with black cottonseed oil. Fedchenko and Kashin. *Masloboino Zhirovoe Delo* **11,** 498 (1935).

Soaps can be improved by the addition of glue which may come from starch, casein or hides. Fritz Ohl. Gelatine, Leim, Klebstoffe **3,** 168-71 (1935).

HOUCHIN SOAP MACHINERY

Presenting a New ROLLER MILL



for

TOILET SOAP

and

SOAP FLAKES

HERE is the newest development in American mills—a four roll, chilled iron, water cooled machine of unusually large capacity. If you are interested in increasing your production and improving the quality of your finished soaps it will be worth while investigating this mill fully. The cost is surprisingly low—in fact this mill may be bought for less than the price of some smaller mills of lower capacity.

Special features include rolls 18″ in diameter by 40″ in length, made of the finest American chilled iron, machined inside and out; no stuffing boxes required; spur type roll gears with all gears running in oil pockets; bronze lined bearings; a hardwood hopper; frame entirely enclosed and mounted on a substantial bed plate; supplied with two tool steel knives, one slotted and one straight edged. No soap or dirt can possibly get inside this mill. More careful control of temperature eliminates blistered cakes.

Houchin manufactures the most complete line of soap machinery in the world. Send for a catalog in which all of our soap equipment is illustrated and described.

HOUCHIN MACHINERY CO.

HAWTHORNE
NEW JERSEY

Products and Processes

Distilled Fatty Acids in Soap

Efficient and economical methods of fatty acid distillation have led to an increased use of distilled fatty acids in soap making. In Germany it is compulsory to use fatty acids for all classes of soap except toilet soap. Distilled palm oil fatty acids are recommended for use in toilet soap rather than bleached palm oil, since the fatty acids yield a fine white soap, even if from inferior grades of palm oil. The distilled fatty acids from palm oil are cheaper than bleached palm oil. Up to 30 per cent of hardened fat and about 10 per cent of coconut oil are included with the charge of fatty acids. *Perf. & Essen. Oil Rec.* **27,** 43-4 (1936).

Iodine Soap

The antiseptic action of iodine is well known but this action is not very great when the iodine is in the form of its derivatives. The most active form is in solution in alcohol or potassium iodide. Iodine can not be used in this form in soap as it is unstable. The best method of introducing it into soap is in the form of a compound with an unsaturated acid such as oleic acid. The procedure is to add 6 to 7 per cent of potassium iodide dissolved in a small quantity of warm water to the liquid soap, at the same time adding 0.5 per cent of sodium bisulfate. *Les Matieres Grasses* 28, 10701 (1936).

Oil Shampoos

Shampooing the hair always removes a certain amount of oil, which may be undesirable in the case of extremely dry scalps. The difficulty can be overcome by offering an oil shampoo for such cases. The oil mixture is first rubbed into the scalp and then the usual shampooing operation carried out with liquid sop or other suitable material. The oil shampoo contains an absorbable oil or oil mixture and an emulsifying agent. An example of this type of product is to mix 90 parts of castor oil at 50 to 60°C. with 5 parts of ricinoleic acid and then add 1.8 to 2 parts of triethanolamine. This may be diluted with alcohol. About 1 per cent of perfume is added at the end. The incorporation of 5 to 10 per cent of trolhetta oil disminishes the viscosity and improves absorbability. *Deutsche Parfumerie-Ztg.* **22,** 8-9 (1936).

Gelatin in Toilet Soaps

Soaps are prepared by the addition of gelatin, agar-agar, gums, casein, commercial resins, plastisizing agents, starch, sugars, other carbohydrates, etc., to soap pastes. By this means it is possible to work up undried soap in toilet-soap machines. Further advantages are increased stability, decrease in hygroscopicity and in loss during manufacture. Victor Boulez. French Patent No. 774,156.

Continuous Oil Refining

Fatty oils are refined by intimately mixing oil and alkali for not more than 5 minutes to neutralize free fatty acids, and separating the neutral fat within about 2 minutes from the soap stock and other impurities. This gives an oil containing only slight traces of residual impurities. The neutral oil is passed by a continuous process into contact with water, mixed, and quickly separated from the water, and dried. Edward M. James. Canadian Patent No. 355,720.

Cobalt in Oil Test

To make a rapid determination of cobalt in oil dissolve 4 cc. of oil in 4 cc. of ether and shake with 5 cc. of a solution of reagent containing 25 grams of ammonium thiocyanate and 50 cc. of acetone diluted to 100 cc. with water. The liquid is greenish in the presence of cobalt and the blue lower layer which separates can be compared colorimetrically with standards similarly prepared. Trivalent iron interferes with the reaction but can be removed by warming the etheral solution of oil gently with a few drops of stannous chloride, cooling and replacing the ether lost, before adding the reagent. M. Procopio. *Annali Chim. Appl.* **25,** 222 (1935).

Sulfonation of Unsaturated Fats

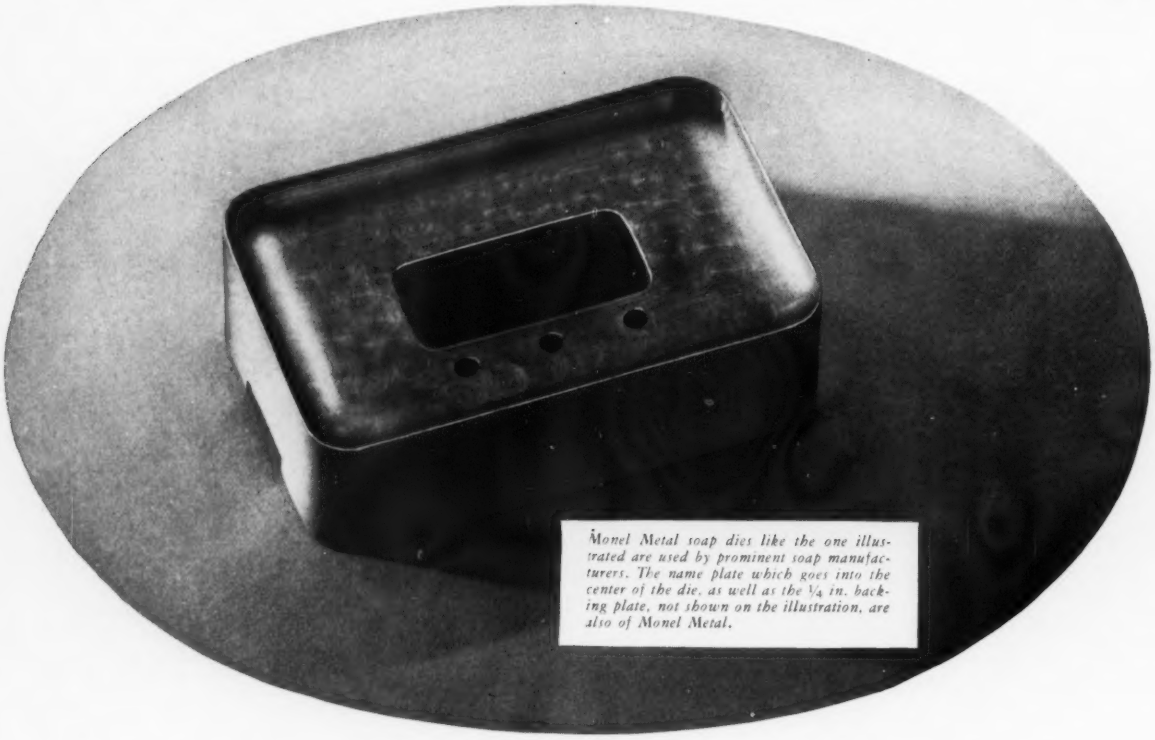
Castor oil, olein, linseed oil, oleyl alcohol, and peanut oil were sulfonated by slowly adding varying amounts of sulfuric acid to 100-gram portions of the fatty materials at 28-30°C. As a general rule, increasing the amount of sulfuric acid caused an increase in organically bound SO_3. This increase was parallelled by a tendency for the sulfonated fatty material to form, with hot water, less and less turbid emulsions. Clear solutions were obtained only with highly sulfonated olein and oleyl alcohol. C. Steiner. *Fettchem. Umschau* **42,** 201-5 (1935).

Clarifying Sunflower Oil

The best results in clarifying sunflower seed oil were obtained by stirring the oil, pressed or nonpressed, at 70°, first with 1 per cent of 3 per cent ammonium chloride solution for 20 minutes, and then with 1 per cent of 0.25 per cent hydrochloric acid. This is followed by salting out with 2.5 per cent salt solution at 68°C., settling for 16 hours, and filtering at 40°C. After 8-10 months of storage, this product formed only 1-1.5 per cent of white sediment and showed no change in acidity. A. Raspopina. *Masloboino Zhirovoe Delo.* **11,** 482-3 (1935)

In effecting such processes in the soap industry as are normally carried out at 180° C. or above, heating is brought about by the direct introduction of steam which has been compressed sufficiently to raise its condensation temperature above the processing temperature. Local overheating is avoided in this way, and the danger of explosion is reduced. Adolf Welter. German Patent No. 620,391.

Give Your Soap the
STAMP *of* CLEANNESS



Monel Metal soap dies like the one illustrated are used by prominent soap manufacturers. The name plate which goes into the center of the die, as well as the ¼ in. backing plate, not shown on the illustration, are also of Monel Metal.

You guard against rancidity and discoloration to the end . . . if your dies are
MONEL METAL

THE soap die looks so harmless. And *seems* to have such a comparatively simple task. Yet if it is made from the wrong metal, it can do considerable damage to the purity of your product.

Some soap makers take no chances on the danger of having rancidity and off color develop in their products because of contamination with dissolved metal from corroded soap dies.

They knew that Monel Metal dies could be trusted not to taint their soap . . . it has proved it resists corrosion by the soaps, perfumes, strong medicaments and antiseptics in their carefully prepared products.

They found that Monel Metal is readily tooled to the design of the die carrying the imprint of their name. They appreciate that the soap is released from Monel Metal dies unimpaired and clean.

They value the durability of Monel Metal, proved in their own plant by services in larger and more costly pieces of equipment.

Inco engineers will gladly give you full information as to machining, tooling and finishing Monel Metal dies. Write them. And ask for these bulletins; they were written with your needs in mind:

"Nickel and Monel Metal in Soap Manufacture"

"Monel Metal and Nickel in the Manufacture of Pharmaceuticals, Fine Chemicals and Proprietary Products"

"Caustic Alkalies vs. Nickel and its Alloys"

THE INTERNATIONAL NICKEL COMPANY, INC.

67 WALL STREET NEW YORK, N. Y.

Monel Metal is a registered trade-mark applied to an alloy containing approximately two-thirds Nickel and one-third copper. Monel Metal is mined, smelted, refined, rolled and marketed solely by International Nickel.

New Patents

Conducted by

Lancaster, Allwine & Rommel

Registered Attorneys

PATENT AND TRADE-MARK CAUSES

815 15th Sreet, N. W., Washington, D. C.

Complete copies of any patents or trade-mark registration reported below may be obtained by sending 25c for each copy desired to Lancaster, Allwine and Rommel. Any inquiries relating to Patent or Trade-Mark Law will also be freely answered by these attorneys.

No. 2,026,816, Soap Preparation, Patented January 7, 1936, by Heinrich Bertsch, Chemnitz, Germany, assignor, by mesne assignments, to American Hyalsol Corporation, Wilmington, Del. A soap composition for use in hard water comprising in combination essentially a water soluble soap and a water soluble salt of an acid sulphuric acid ester of a higher aliphatic alcohol in proportions which prevent precipitation of the soap during use in hard water.

◆

No. 2,027,936, Process of Manufacturing Soaps, Patented January 14, 1936, by Walter Schrauth, Berlin-Dahlem, Germany, assignor, by mesne assignments, to "Unichem" Chemikalien Handels, A-G., Zurich, Switzerland. The process of producing soap from sperm oil which comprises saponifying the sperm oil and oxidizing the alcohols formed by treating the material with concentrated alkali at a temperature approximating 200 to 280° C., the quantity of the alkali being approximately 1 to 2 per cent greater than that indicated by stoichiometric calculations for the reaction.

No. 2,028,324, Shoe Polish, Patented January 21, 1936, by Hugh P. Griffin and Robert P. Richardson. Dry composition of white shoe polish comprising a substance selected from the following group: lithopone, or barium sulphate and zinc sulphide, in mixture with talc and trisodium phosphate.

◆

Fatty Alcohol Derivatives

Lauryl, oleyl and cetyl alcohols were esterified with concentrated sulfuric acid and then neutralized with ammonium hydroxide, potassium hydroxide and sodium hydroxide. Good cleansing action was exhibited for 0.1 to 0.25 per cent solutions at 50° C. The cetyl compound, contrary to other reports, showed high detergent power. At moderate temperatures all three alcohol derivatives showed about the same detergent power. S. Ueno, S. Yokoyama and Y. Iwakura. *J. Soc. Chem. Ind.*, Japan **38**, Suppl. binding 603-8 (1935).

◆

Coconut Oil Residue Wax

During the storage of coconut oil, a sediment separates on the bottom of the storage tank. When purified, this sediment forms white crystals soluble in various organic solvents. The material is not a glyceride but appears to be a wax containing the myricyl ester of cerotic acid. The wax may be used in making floor wax and furniture and leather polishes. Simeona S. Tanchico. *Philippine J. Sci.* **57**, 423-6 (1935).

◆

Textile Oils from Degras

Emulsifying and dispersing agents are prepared by treating sod oil, degras, moellon or similar oil recovered in the manufacture of chamois leather, with ethylene oxide, preferably in the presence of caustic alkali or a surface-active solid such as infusorial earth or silica gel. The products give emulsions with animal, vegetable and mineral oils and are useful in the textile industry as leveling agents in dyeing and printing, and for improving the cleansing action of the fatty alcohol sulfates. Imperial Chemical Industries, Ltd., Henry A. Piggott and George S. J. White. British Patent No. 434,424.

◆

Washing Agent for Hair

A washing agent suitable for both the skin and hair contains products of the formula $RXSO_3Y$ or $RXPO_3:Y_2$, where Y is an alkali metal or an organic or inorganic radical forming a salt, R is an organic radical, preferably aliphatic, of 10 or more carbon atoms, and X is oxygen, sulfur, a substituted imino group, a methylene, alkylene or arylene group. Ehrhardt Franz. French Patent No. 786,533.

◆

Brushless Shaving Cream

A formula is suggested as follows:

	Parts
Glycosterin	14
Stearic acid, triple pressed	6
Mineral oil, white	1
Diethylene glycol	5
Water	74

Perfume oil, menthol or methyl salicylate to suit.

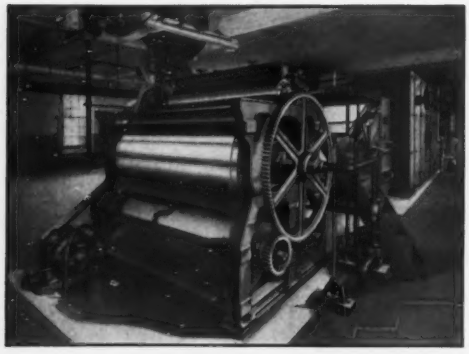
Melt the glycosterin, stearic acid and mineral oil together at a temperature not over 80° C. Heat the mixture of diethylene glycol and water to 85° C. and run into the oil mixture with rapid stirring. Continue the mixing until the temperature drops to 50° C. Add perfume and mix until uniform.

◆

Purifying Glycerine Liquors

Treating acid glycerine liquors with iron shavings and a strong air current at 90° C., filtering and neutralizing the filtrate with barium hydroxide, gave the best results with glycerine of d_{20} 1.244, 1.14 per cent ash and organic contents. Treating glycerine waters with barium carbonate before or after neutralization with calcium hydroxide is of no marked advantage. P. Andronov. *Masloboino Zhirovoe Delo* **11**, 353-5 (1935).

PRODUCING THE PERFECT CHIP FOR ALL SOAP MAKING NEEDS



● New Type Proctor Chip Soap System producing extremely thin chips of textile soap in new plant of Original Bradford Soap Co., River Point, R. I.

● The New Proctor Chip Soap System produces the thinnest of chips . . . chips perfectly formed in long ribbons, evenly thin from edge to edge, uniformly dried free from hard overdried particles or underdried spots. These chips make cleaner, whiter,. quicker-dissolving laundry flakes. They make smooth-surfaced, clear-colored toilet cakes. They give quicker, better milling and plodding. They give quicker, easier grinding into powdered soaps . . . with less loss in dust. New high speed chilling roll . . . spray-cooled, pump-drained, precision-ground, smooth-surfaced. New drying machine . . . with revolutionary improvements in principal details of design . . . more efficient, more economical, cleaner in operation. Write for your copy of our new descriptive Bulletin No. 72.

PROCTOR & SCHWARTZ, INC.

• SEVENTH ST. & TABOR ROAD PHILADELPHIA •

Breaking into the English market

The United Kingdom and the British Empire offer profitable fields for sales expansion. Many well-known American manufacturers are concentrating on this market. If you are interested why not become a subscriber to the "Soap, Perfumery and Cosmetics Trade Review"—the only British trade paper produced exclusively for manufacturers of soaps and cosmetics.

The "S. P. C." is more than a trade paper—it provides a thorough marketing service for its subscribers. It will give you help in finding the right manufacturer to produce your goods—it will put you in touch with selling agents and advertising agents. It will collect and forward information and render other useful services entirely without charge. A year's subscription costs you only $3.00 (or $5.00 for 2 years). Why not send in your subscription now for two years? Send us your check or international money order.

Soap Perfumery and Cosmetics

Incorporating The Soap Trade Review

102-5 Shoe Lane, London, E. C. 4

TRADE REVIEW

Catalysis in Soap Manufacture

(*From Page 65*)

standing three distinct layers are formed. After standing for about three hours, the upper layer contains the fatty acids and can be drawn off from the top of the vat, while the glycerin which constitutes the bottom layer can also be run off. It is however better, if possible, to allow the vat to stand for 12 hours at least, as this promotes greater separation and a yield approaching 95 per cent of the theoretical can be obtained. The middle layer consists of an emulsion containing some 2 or 3 per cent of unsaponifiable matter, about 35 per cent of fatty acids, and the remainder largely glycerin and water. This emulsion is eminently suitable for direct use in soap-making.

The method just described is economical and gives fatty acids of very good quality although the success of its adoption ultimately depends upon the price of castor oil. The glycerin obtained is often sold in the unrefined state, but if it is possible to sell it in the finished condition it naturally commands a higher price and may make all the difference between success and failure.

The technical success of the operations demands that a low temperature should be used and that the oils to be treated should not contain any mineral acids or foreign material likely to hinder the fermentation process by poisoning or destroying the enzyme. Should the rate of hydrolysis be unduly slow it is generally possible to increase it by the addition of more ferment.

THE ordinary saponification process itself is also a fruitful field for experimenting with catalytic methods since clearly a saving in the time of saponification is desirable from many points of view if it can be achieved. It is well known, for example, that while coconut oil, palm kernel oil and castor oil will saponify quite easily and quickly, tallow, hydrogenated oils, etc., saponify much more slowly. The reason for this has been explained by Langmuir as follows: He assumes that the colloidally dissolved fats are arranged in a regular system, the polar groups, (e. g. carboxylic and ester groups, double bonds, etc.) dipping into the water with the water-insoluble carbon chain remaining more or less perpendicular to the limiting surface. Hence the number of molecules in actual contact with the hydrolising liquid will be greater according as the number of double bonds in the molecule of the fatty acid decreases. This must necessarily be the case as there is a definite limited number of groups that can be held at the surface.

It follows therefore that the rate of saponification of fats will be lower the more unsaturated they are, and this fact has actually been established experimentally, the rate of saponification being found to be inversely proportional to the fraction of unsaturated glycerides present in the fat. It is possible to saturate the free valencies of the unsaturated glycerides by the addition of certain groups, and when this is done the orientation of the molecules with respect to the limiting surface then becomes similar to that existing in the saponification of the more saturated fats, so that the rate at which saponification takes place is considerably increased. A typical example of this action is shown in the fact that blown vegetable oils and sulphonated oils are much more readily saponified than the corresponding untreated oils. In the first case the oils have lost their unsaturated character by combination with oxygen molecules at the double bond, whilst in the second case the sulfonate group has had the effect of saturating the molecule.

On these lines it may be shown that the presence of about 1 per cent of aromatic derivatives of a phenolic type have a very considerable catalytic effect in accelerating the speed of saponification. Small quantities of such bodies have such a pronounced effect that it is possible by their means to saponify such oils as cottonseed and linseed in a few minutes. The catalyst appears to act on the unsaturated bond in the molecule, and a definite rise in temperature is shown when the time-temperature curves with and without the catalyst are compared. The cresols, naphthols and thymol have the greatest effect in hastening saponification. Phenol is not so active although it has a useful action in promoting emulsification, and so indirectly causes an increase in the rate of saponification, as do in fact all substances which induce the fat to emulsify more thoroughly with the lye. In general it has been found that the catalytic activity is greater the lower the solubility of the phenolic bodies is in water. There is a definite maximum concentration of catalyst at which the greatest activity is obtained, and there is no point in increasing its concentration beyond this amount. The method of introducing the catalyst is to dissolve it in a small amount of the oil at about 80° C. and then stir thoroughly into the reaction mixture.

A few examples of the results obtained under standard conditions by the aid of a saponification catalyst are given below. The proportion of catalyst added is in every case 1 per cent.

Oil	*Time for complete saponification*
Coconut oil	4 hours (94% complete)
Coconut oil + *a* —naphthol	40 minutes
Cottonseed oil	70 hours
Cottonseed oil + *a* —naphthol	40 minutes
Cottonseed oil + *B* —naphthol	40 " (98% complete)
Cottonseed oil + thymol	1 hour (98% complete)
Linseed oil	76 hours
Linseed oil + *a* —naphthol	40 minutes

The complete saponification curves are of the usual type, and although the above figures give only the time for saponification to completion the immense reduction in time which is brought about in saponification to any pre-determined degree is readily appreciated. Besides this, it is generally possible to carry out the saponification process at a considerably lower temperature in the presence of a catalyst.

DISINFECTANTS

containing YARMOR 302

form a milky-white emulsion when poured into water. They kill many disease-producing bacteria and leave a pleasant piney aroma wherever applied.

☆ We supply **Yarmor 302 Steam-distilled Pine Oil** to manufacturers of disinfectants.

HERCULES NAVAL STORES

HERCULES POWDER COMPANY
INCORPORATED
961 Market Street, Wilmington, Delaware

Return the coupon for further information

☆

BRANCH OFFICES
Chicago
New York
Philadelphia
St. Louis
Salt Lake City
San Francisco

HERCULES POWDER COMPANY, 961 MARKET STREET, WILMINGTON, DELAWARE

Please send information about the value of Yarmor 302 in disinfectants.

Name _____

Company _____

Street _____

City _____ State _____ QQ-5

SANITARY PRODUCTS

A Section of "SOAP" Dealing with

INSECTICIDES • DISINFECTANTS • EXTERMINATING
FLOOR PRODUCTS • SANITARY SUPPLIES • MOTH PRODUCTS

POWCO BRAND
REG. U.S. PAT. OFF

"Killing Power--That's the Thing"

To put out a good product, is, we know, the aim of every insecticide manufacturer.

Having the interests of the industry decidedly at heart, it is our aim to continue the experiments we have made in the past so that our friends may be kept posted as to matters which may affect their manufacturing processes.

We have through our specialization, studied Pyrethrum and Rotenone intensively. Since results are what you want we feel that our background of research and experiment entitles us to the confidence of responsible insecticide manufacturers.

JOHN POWELL & CO., Inc.

Specialists in Pyrethrum and Rotenone Products

114 EAST 32nd STREET NEW YORK, N. Y.

Prentox

(Trade mark reg.)

Stock Spray Concentrates

"IT is perfectly possible to manufacture at a reasonably low cost, stock sprays which are entirely safe from the physiological angle and which possess sufficient repellency and toxicity to flies to entitle them to a ranking of 85% or even 90% according to the method of rating described here and to a correspondingly high ranking by whatever other method anyone may care to use. A proper combination of Derris Resins with a safe and effective repellent of the fumigant type dissolved in a properly chosen base oil will make a stock spray which will fully meet the most exacting specifications."

The foregoing quotation is from our recently issued 8 page bulletin "Stock Spray Valuation" which describes a detailed comparative study of a number of commercial stock sprays and suggests a method for determining relative efficiency.

Copies are available on request.

R. J. Prentiss & Co., Inc.

100 Gold Street New York, N. Y.

DERRIS, CUBE AND PYRETHRUM: POWDER AND CONCENTRATE

Good Scents

NOWADAYS, TO

SELL FLY SPRAY

KEROSENE or other insecticide odor is especially unpleasant to the woman of fastidious tastes, who dislikes having her home, person and furnishings "smelled up."

A pleasantly perfumed spray is easy to sell—and fly spray manufacturers who are using Felton covering products have found this out—to their own and their dealers' profit!

Try Felton's economical neutralizing and perfuming agents.

They offer you maximum coverage, minimum cost, and the prospect of definite sale increase!

VITAFLOR No. 758— **Powerful Neutralizer**

KEREX L'ORIENT
KEREX BOUQUET
KEREX CHERIE

Neutralize and perfume in one operation at a cost of approximately 3c to the gallon of Fly Spray.

Write for Samples and Quotations

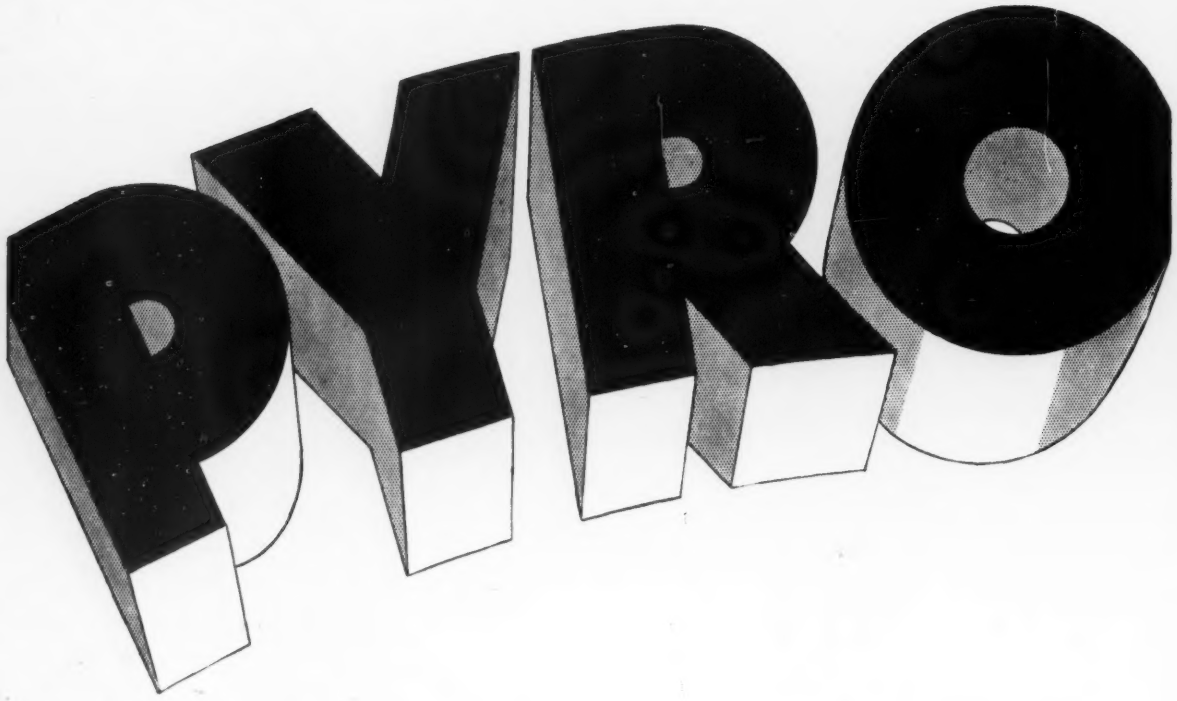
FELTON CHEMICAL COMPANY

Johnson Avenue, Brooklyn, N. Y.

MANUFACTURERS OF AROMA[illegible]ALS, NATURAL ISOLATES, PERFUME OILS, ARTIFICIAL FLOWER AND FLAVOR OILS

[illegible]ston, Mass. 1 Boylston St. | **Philadelphia 200 So. 12th** | **[illegible], Ohio Market St.** | **Chicago, Ill. 1200 N. Ashland Ave.** | **St. Louis, Mo. 245 Union Blvd.** | **New Orleans, La. Balter Bldg.** | **Los Angeles, Calif. 515 So. Fairfax Ave.**

"WE HAVE FOUND THAT NONE OF FAVORABLY IN LOW COST AND HIGH



A famous continental manufacturer of insecticides made this comment when placing his order with us for the fourth consecutive year:

"We are very pleased to place our business with you again for Pyrocide 20. On the continent the point of first importance is lowest cost per unit of killing power. In the past four years we have used more than 1,000 kilos each of concentrates from England, Germany, Japan, and some from other prominent concentrate manufacturers in the United States, in an effort to decrease our cost. We have found that none of these concentrates compares favorably in low cost and high killing power with Pyrocide 20. Many other concentrates do not retain strength. We have stored Pyrocide 20 for more than a year and have had equally good results from it.

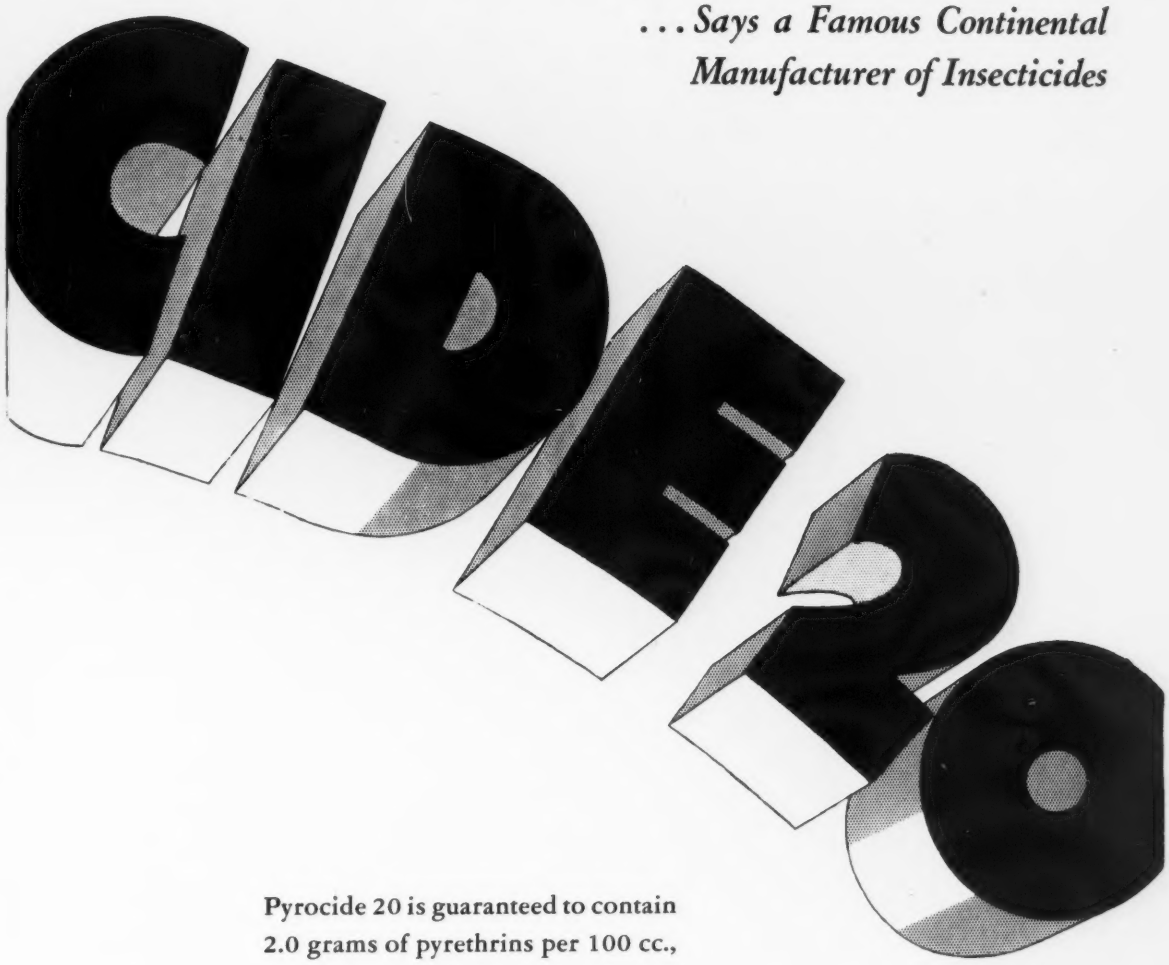
"We are pleased to order our supplies from you again."

We submit this as evidence of the fact that PYROCIDE 20 is not only recognized in the United States as the leading pyrethrum concentrate, but has assumed that position on the continent as well.

UNIFORM KILLING POWER

THESE CONCENTRATES COMPARE KILLING POWER WITH PYROCIDE 20"

. . . Says a Famous Continental Manufacturer of Insecticides



Pyrocide 20 is guaranteed to contain 2.0 grams of pyrethrins per 100 cc., equivalent to 2.4 per cent pyrethrins. Shipped in 5, 10, 15, 30 and 53 gallon drums. Warehouse stocks in New York, Los Angeles and Minneapolis.

Free Booklet on Request

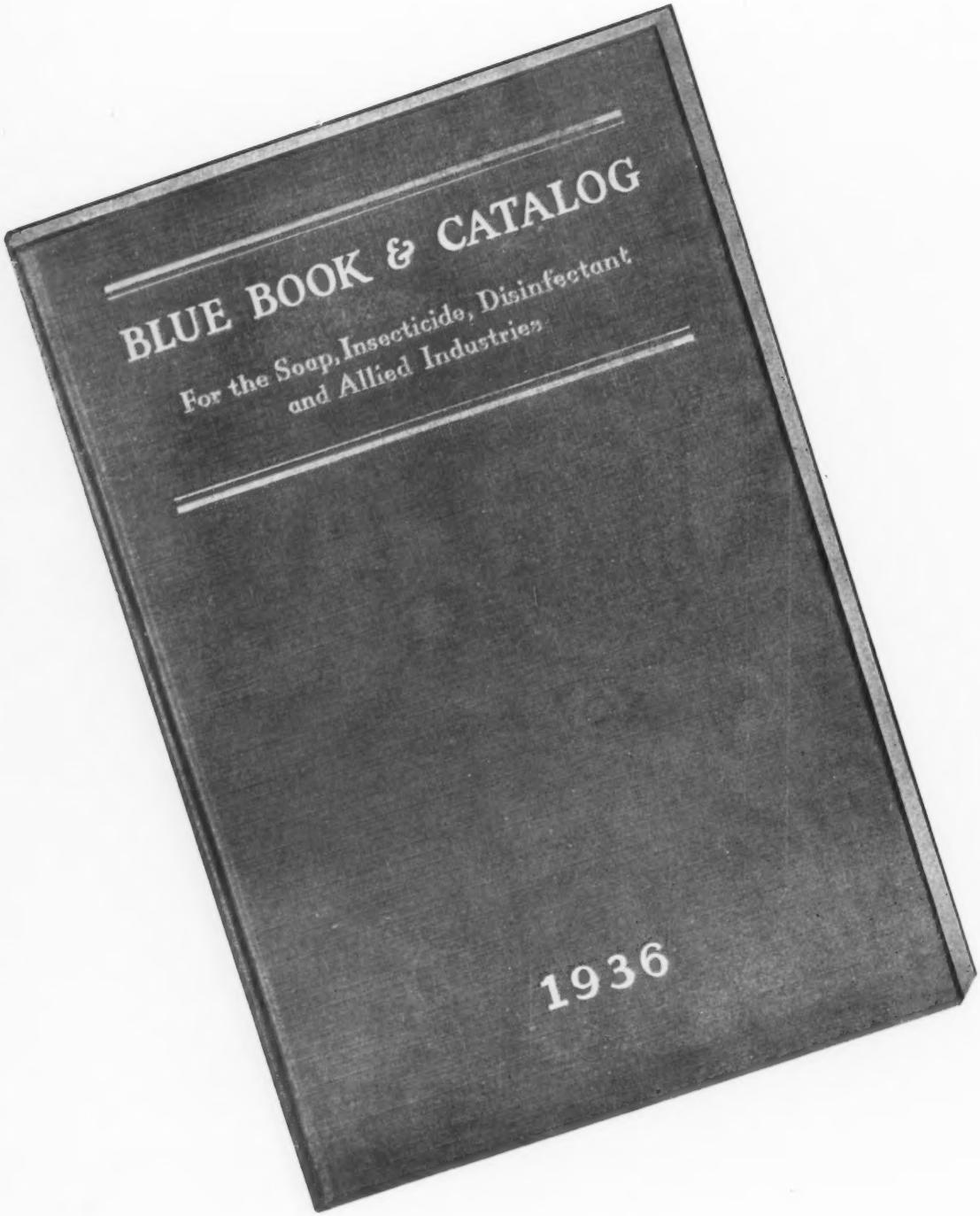
McLAUGHLIN GORMLEY KING COMPANY

MINNEAPOLIS, MINNESOTA **405 LEXINGTON AVE., NEW YORK CITY**

PYROCIDE 20

STANDARDIZED EXTRACT OF PYRETHRUM FLOWERS

Just Out!



See Opposite Page ⟶

Contents of The New

1936 SOAP BLUE BOOK

In this section we have endeavored to collect information which will be of value throughout the year. Included in the 1936 Blue Book's reference section is the following material: An article containing a number of suggestions on the marketing of new products; a complete index of all manufacturing and technical articles which appeared in the 1933, 1934 and 1935 issues of SOAP; the Peet-Grady Test in complete form as well as Seil's modification of the Tattersfield method for determination of pyrethrins; information on how to buy and compare sanitary products; the F.D.A. test for disinfectants; Federal specifications for all soaps, sanitary products and chemical specialties.

Reference Section

The Buyer's Guide contains a list of everything readers of SOAP buy—raw materials of all kinds, machinery, packaging materials and bulk soaps, sanitary products and sanitary accessories—with a complete record of all of the known manufacturers of each item. This is distinctly not an ordinary buyer's guide, cluttered up with names of dealers, branch offices, etc., and with advertisers indiscriminately listed. The entire guide has been carefully checked by everyone in our organization familiar with firms supplying the soap and sanitary product industries.

Buyer's Guide

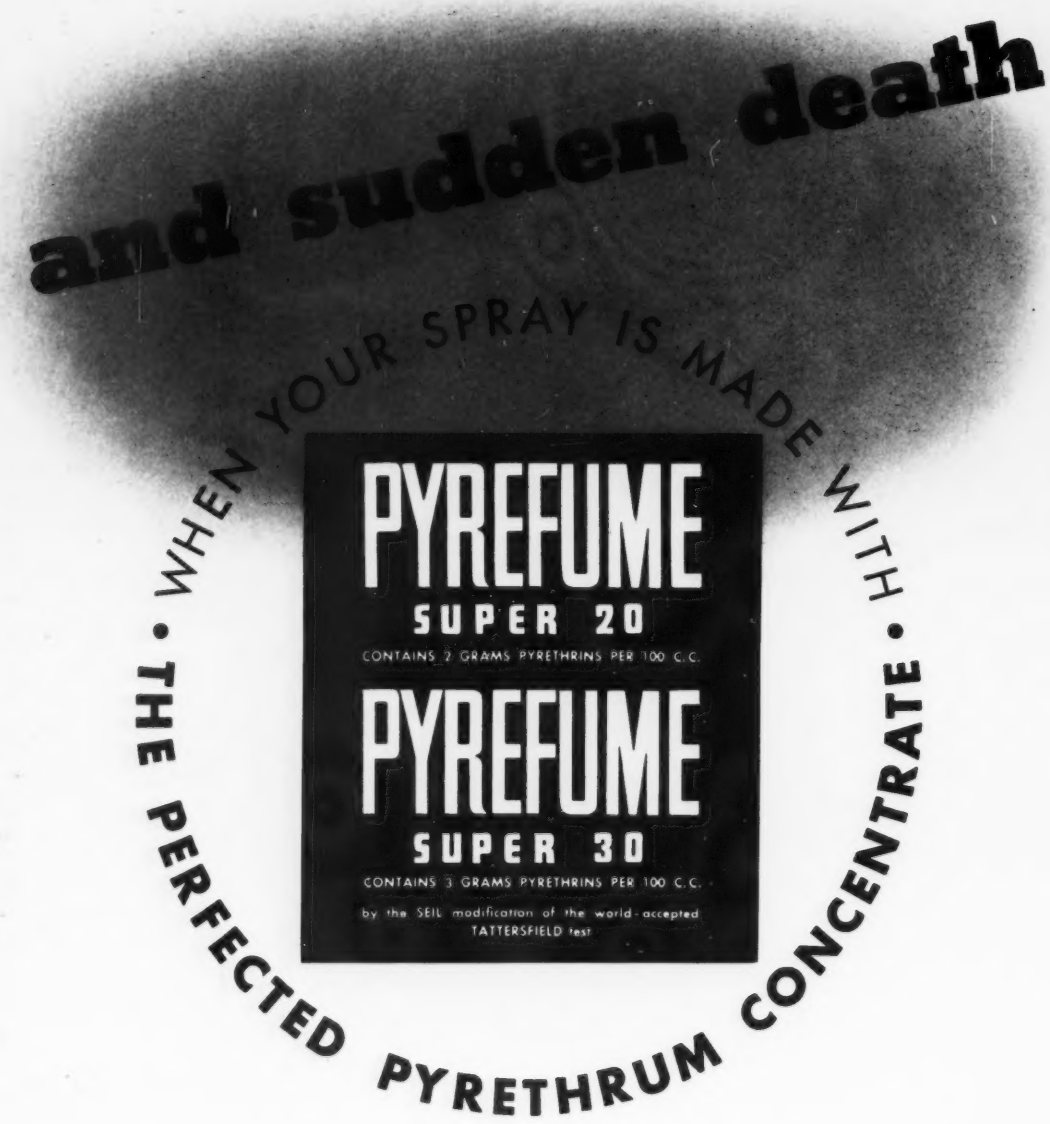
Seventy of the leading companies selling raw materials, equipment, bulk products, packaging materials, etc., have filed their condensed catalogs in this section making it easy for buyers to locate suitable sources of supply and to check on the complete line of products offered by these concerns. Catalog section advertisers are listed throughout the Buyer's Guide in black face type. With each listing their advertising page numbers are given.

Catalog Section

FREE

The SOAP BLUE BOOK costs SOAP subscribers nothing. Free copies have already been mailed to our entire list. A limited number of additional copies are available. If you want one your check for $3.00 (Foreign, $4.00) will cover a subscription to SOAP for one year and will insure your receiving a BLUE BOOK by return mail.

MacNair-Dorland Co., Inc. 254 West 31st St., New York


and sudden death
WHEN YOUR SPRAY IS MADE WITH
PYREFUME
SUPER 20
CONTAINS 2 GRAMS PYRETHRINS PER 100 C.C.
PYREFUME
SUPER 30
CONTAINS 3 GRAMS PYRETHRINS PER 100 C.C.
by the SEIL modification of the world-accepted TATTERSFIELD test
• THE PERFECTED PYRETHRUM CONCENTRATE •

THESE products are not only physiologically tested in our PEET-GRADY chamber to confirm the killing power, but are also stabilized against inherent deterioration by the unique PENICK method.

In addition to being manufacturers of Pyrefume, we are the largest botanical drug firm in the world. Our vast physical resources and modern laboratories help us keep abreast of latest developments in all phases of the industry, and as a result, Penick products are universally accepted the world over as products of unquestioned quality.

Call On Us

FOR TECHNICAL DATA ON DERRIS ROOT, CUBE ROOT and ROTENONE, which are now widely used and also RED SQUILLS, Nature's destructive agent for rats.

S. B. PENICK & COMPANY

NEW YORK • CHICAGO

PENICK PRODUCTS ARE QUALITY PRODUCTS

Short Cuts to PERFUMING ECONOMIES

MM&R *Scents*
CUT *Dollars* OFF
YOUR PERFUMING COSTS

"Prices too high," "can't meet competition," "margin of profit too small"! **You've got to CUT CORNERS TO STAY AHEAD these days.**

That's where the M M & R organization can be of service to you! The development of a line of highly concentrated odors and foolproof substitutes for expensive natural oils will trim your production costs without any noticeable change in the quality or sales appeal of your products.

The M M & R policy of *leading* rather than following, places us in a position to offer you new and profitable suggestions for the use of our line of odors in the production of liquid soaps, para blocks and insect sprays. *Your inquiry is invited.*

Proverb!

"He who maketh two blades of grass grow where but one grew before is a servant of mankind."

2 lbs. of PERFUME OIL 413 MM&R has the odor volume of 3 lbs. of Oil Sassafras Artificial . . . why not put this "servant" to work for you.

PERFUME OIL 413 MM&R

Understudy Makes Good

OIL CITRONELLA USERS—PLEASE NOTE!

Reports on ANDRO MM&R, the inexpensive substitute for Oil Citronella are highly gratifying — Equal in pungency to best Citronella Oil — uniform in quality and strength —almost water white —does not darken finished soaps, sprays, etc.

ANDRO MM&R

MAGNUS, MABEE & REYNARD, INC.

QUALITY ESSENTIAL OILS, BALSAMS, AROMATIC CHEMICALS, BASIC PERFUMES, FLAVORING MATERIALS . . . SINCE 1895

32 CLIFF STREET NEW YORK, N. Y

OFFICES IN PRINCIPAL CITIES

DICHLOROMES NORDA

For Paradichlor Benzene

Series A $1.00	Series B $1.50	Series C $2.00
Bouquet A	Bouquet B	Bouquet C
Lilac A	Lilac B	Lilac C
Rose A	Rose B	Rose C
Violet A	Violet B	Violet C
Sweet Pea A	Sweet Pea B	Sweet Pea C
Gardenia A	Gardenia B	Gardenia C

SECTOROMES NORDA

For Fly Sprays

$.50 lb.	$1.00 lb.
Sectorome No. 1	Sectorome No. 11
Sectorome No. 2	Sectorome No. 22
Sectorome No. 3	Sectorome No. 33
Sectorome No. 4	Sectorome No. 44
Sectorome No. 5	Sectorome No. 55
Sectorome No. 6	Sectorome No. 60

Norda

ESSENTIAL OIL & CHEMICAL CO., INC.

Chicago Office
325 W. Huron St.

Los Angeles Office
685 Antonia Ave.

St. Paul Office
Pine and E. 3rd St.

Canadian Office
119 Adelaide St., W., Toronto

601 West 26th Street, New York City
LAckawanna 4-4700

Southern Office
Candler Annex Bldg., Atlanta, Ga.

HUDSON SPRAYERS

To The FRONT!

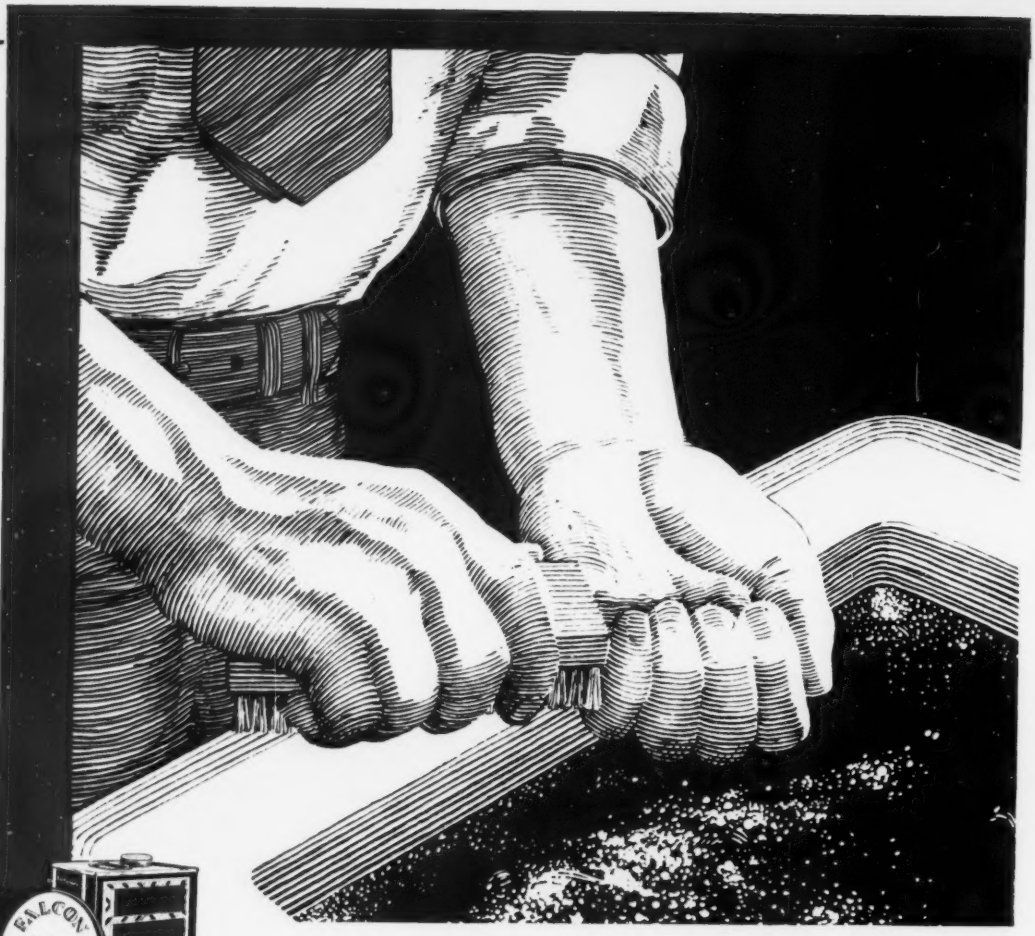
THE front lines are moving up for the war on insect pests. The big spring drive is on for 1936 sales!

You've spared no effort to produce the best insecticide money can buy. Now, put it on the firing line with the last word in insect-fighting equipment!

In the 1936 Line of Hudson Sprayers there's exactly the model your product needs—whether it's for the smallest skirmish or the biggest battle. And you can depend upon every Hudson Sprayer to give it the complete break-up that means the greatest insect-destroying power.

A Hudson expert will gladly help you choose the right "weapon" that'll help to mobilize dealers and keep your product in the front rank for distinguished service.

H. D. HUDSON MANUFACTURING COMPANY
589 E. ILLINOIS STREET :: CHICAGO, ILLINOIS



FOR CUSTOMERS Hard-to-Please

FALCON 40% CONCENTRATED LIQUID TOILET SOAP

FALCON 18% LIQUID SOAP

U. S. GOVERNMENT STANDARD LIQUID TOILET SOAP

MECHANICS GRADE LIQUID TOILET SOAP

62% COCONUT OIL SOAP BASE

You've met him—the customer who is very particular. If he seems hard to please, it's because he knows values and can't be fooled.

Falcon soaps are made for the most critical customers. Tested for purity or performance, they readily prove their superiority.

For Falcon Liquid Toilet Soaps are made with what we believe is the greatest care and highest skill ever combined in the manufacture of toilet soaps. Only edible cochin coconut oil is used. The glycerine content is left intact. That is why each Falcon soap gives such mountainous lather, leaves the skin so creamy soft.

If you aren't selling Falcon Liquid Toilet Soaps—begin now. They will help build for you a sound and profitable jobbing business.

EAGLE SOAP CORPORATION
HUNTINGTON INDIANA

Falcon Liquid Toilet Soaps

DEO-BASE

Reg. U. S. Pat. Off.

The Importance of Stability

With the introduction of Deo-Base to the insecticide industry, L. Sonneborn Sons, Inc., pioneered the adoption of hydrocarbon distillates refined to complete freedom from kerosene odor.

In addition to its odorless characteristics, Deo-Base possesses another equally important property. *It automatically maintains its own stability and prolongs the effectiveness of the toxic principles employed in the manufacture of liquid insecticides.*

This additional feature, plus the established consumer demand for insecticides free from kerosene odor, makes Deo-Base

THE IDEAL BASE FOR LIQUID INSECTICIDES

L. SONNEBORN SONS, Inc.

Refiners of White Oils and Petrolatums

Refineries: Petrolia, Pa. and Franklin, Pa.

New York
88 Lexington Avenue

Los Angeles
215 West 5th Street

Chicago
820 Tower Court

STOCKS CARRIED IN PRINCIPAL CITIES

BETTER ODORS
BIGGER ORDERS

DURING the past few years better odor has been so successful in improving the sales of fly sprays that no manufacturer can afford to ignore the fact.

So most fly sprays are now scented with a pleasant odor—but this does not mean that in all cases the job has been well done. On the contrary, some products are so poorly reodorized that they are little better than the unscented article.

Developing perfumes for fly sprays is a job for men who know how. Givaudan experts, pioneers in this field, have had long experience . . . know what odors to use for what product . . . and how to use them in the best, most economical way. As a result they can give you valuable cooperation and advice in choosing the odor best suited to meet *your* specific needs. Remember, in today's fly sprays and similar products, better odors mean bigger orders. May we arrange for tests?

GIVAUDAN
DELAWANNA INC.
80 FIFTH AVENUE, NEW YORK, N. Y.

Branches: Philadelphia, Los Angeles, Cincinnati, Detroit, Dallas, Baltimore, New Orleans, Chicago, San Francisco, Seattle, Montreal, Havana.

Don't miss the 11th Drug & Chemical Dinner on March 19, 1936 at Hotel Waldorf-Astoria

A LOOK!.. A LEAP!

When products falter in the path of trade • swing out to NATIONAL • to new life and action • to smart, well-planned Containers. ● NATIONAL devises modern modes in Container design and decoration. Under them, products spring forward into swifter sales.

A LEAP! . . .
A HAPPY LANDING!

GO NATIONAL

NATIONAL CAN COMPANY · 'Inc.'

FOR OVER A QUARTER CENTURY • KNOWN AS METAL PACKAGE CORPORATION

EXECUTIVE OFFICES • 110 EAST 42nd STREET • NEW YORK

One of America's Largest Canmakers

SALES OFFICES AND PLANTS • NEW YORK CITY • BALTIMORE • BROOKLYN • CHICAGO • BOSTON • DETROIT • NEW ORLEANS

FISCHER CAN COMPANY DIVISION • HAMILTON • OHIO

Specialists in doing one thing well

Baird's

Reg. U. S. Patent Office

For over a quarter century manufacturers of

TESTED and CERTIFIED COAL TAR and PINE OIL

DISINFECTANTS

for the wholesale trade

BAIRD & McGUIRE, Inc.

HOLBROOK, MASS. ST. LOUIS, MO.

New York City and New Jersey Representatives:

EASTERN STATES SUPPLY CO., 127 Troutman Street, Brooklyn, N. Y.

Phone: EVergreen 8-2498

SANITARY PRODUCTS

A Section of SOAP

Official Publication, Nat'l. Assn. of Insecticide & Disinfectant Manufacturers

The Editorial View

WHEN our inquiring reporter visited a few drug stores to buy a disinfectant recently, and to ask the whys and wherefores of various and sundry disinfectants, one druggist was quite reluctant to make the sale. He quite obviously suspected that the reporter had ideas of suicide hidden away somewhere under his skull. May be this is another reason why some druggists do not sell much disinfectant.

TRUE to predictions made a month ago, the Veterans' Administration has awarded bids for some five thousand gallons of household insecticide spray based on specifications which the bidders cannot meet, and at prices which are so low as to be completely ridiculous. The prices are about twenty-five per cent below those which we predicted would be quoted, and about half of what a good liquid insecticide should sell for even in thousand gallon lots. Now, all the bidders have to do is to supply the material as per specifications,—no odor, no staining, non-poisonous, and 80% kill,—and the Veterans' Administration to make sure that they do.

AND now an insecticide manufacturer in Western Pennsylvania tries out his roaches on a miniature race track to test their vitality before using them to test the effectiveness of his insect killers. No half-dead test insects and a consequent high kill for this manufacturer! He really wants to know what his product will do. May be we can get him to build a miniature airdrome to run a few fly races to see if said flies are suitable subjects for use in the Peet-Grady Test. But on the other hand, judging from two specifications for fly spray which we have seen lately calling for kills around 85%, it might be much more fair to the manufacturer to use half-dead flies in the tests.

TO hear a group of insecticide manufacturers glibly discuss markets, merchandising and advertising, one would hardly believe that about half of the intelligent population of the country does not even know what an insecticide is.

SOMEBODY has called for a subsidy by the Government for pyrethrum cultivation in the United States. Back before the AAA met its end at the hands of the Supreme Court of the U. S., the suggestion was made that instead of paying farmers for not growing crops, they be paid for growing other things besides food crops, namely pyrethrum. May be the idea is not as far-fetched as it may seem. It would be a sad day indeed for the American insecticide industry if its supply of pryethrum from Japan were ever cut off. And if the increase in consumption of pyrethrum over the next ten years matches the past ten, other sources to supplement the Japanese supply may become necessary. But in true American fashion, we will probably wait for the eventual shortage and then do our planting in haste when necessity is just around the corner,—or else take what we can get from other foreign sources.

Disinfectant Ignorance!

A Study of Small-Package Sales in Retail Stores

By FLORENCE E. WRIGHT

KNOWLEDGE of the purpose, value and correct use of disinfectants is almost universally lacking among consumers, retail store owners, and salesmen. Coupled with lack of concrete information and possibly the result of it, is a very poor turnover. Retail sales of disinfectants in the majority of stores carrying them fall considerably behind most other products. Even recognizing the fact that a disinfectant is a product not as constantly used around the home as a great many stock items in drug, grocery and hardware stores, there is still an unusual inactivity in this product, as was shown in a recent survey of sales of disinfectants in a limited number of stores in Westchester County, New York, a representative residential community.

These facts were found to be true in a study of the selling and merchandising of disinfectants in the drug, grocery and hardware stores of Westchester County, where, in the various districts, all kinds and classes of homemakers do their household shopping. This investigation was intentionally limited to those products recommended as general disinfectants, excluding germicides and antiseptics intended primarily for personal use. In the course of the investigation, thirty store owners in representative sections of the territory were interviewed, (ten each of the three types of store). Although the survey is limited to a small portion of the market for disinfectants, the results are so pronounced as to point to generalizations. Other facts discovered take the opposite trend, being so diverse that explanations may only be guessed.

Twenty out of the thirty store owners indicated that sales in disinfectants ranged from slow to barely average. Two of the three hardware stores selling with a quick turnover did most of this business with large apartment houses and garages. Other hardware stores doing a family business and selling disinfectants very slowly, generally had a few small bottles of two well-known disinfectants tucked away on an obscure shelf hard to discover even if one were looking for them. Certainly no shopper for garbage pails or packages of tacks would ever come across them. It seems safe to hazard the guess that most women purchasers have little idea that hardware stores carry this product. The investigation unearthed a good many that do not carry it at all.

Discounting the significance of the two stores selling disinfectants on a wholesale basis, owners of hardware stores consistently reported a slower turnover than either druggists or grocers. Four grocers and three druggists found disinfectants selling more rapidly than their average stock items. The greater success in grocery stores may be explained in any one of three ways. 1) Their stock of disinfectants is limited generally to a smaller number of brands than the druggist's, the average for the grocery stores being three, that for the drug stores, nine. 2) The study shows that the most frequent use of disinfectants is for general household purposes and for such uses it is psychologically probable that women will make such purchases in grocery stores along with other everyday supplies for the home. 3) Grocers grouped with disinfectants certain laundry bleaches with disinfectant properties which would normally sell more rapidly than the strict disinfectant. The general story, however, is that disinfectants sell slowly.

In connection with lagging sales, the correlation between slow turnover and the indifference and ignorance of the dealer is striking. In half of the stores with poor disinfectant sales, the managers definitely deprecated regular use of a disinfectant and denied using one in their own stores. Not one of the owners of hardware stores, where selling disinfectants was generally slow, had any knowledge of the ingredients of these products or the special values of the different types. In the few cases where these men suggested a disinfectant which was good, their reasons were either that it sold the best or seemed to be most popular. Six of the druggists interviewed were unfamiliar with the coefficients of the various products. Four understood this although in no instance did they explain it to their customers unless asked. Possibly it is a mere coincidence, but the fact is that the six druggists who did not have knowledge of the coefficients of the products they sold had the poorest sales of the ten. All but one druggists, however, gave logical and clear reasons for their choice of a good disinfectant, and two who had good sales, recommended products only according to the intended use. In most cases salespeople would recommend one favorite brand regardless of the use to which the customer planned to put it. The single grocer who was familiar with the coefficients carried a greater variety of brands than any of the others and also claimed excellent sales. This grocer, nevertheless, believed that grocery stores should not be allowed to sell disinfectants because of the general ignorance of the proprietors and salesmen.

AS would be expected, stores serving a higher class clientele had, on the whole, better sales than less happily located stores. How much more, however, people living in crowded, dirty tenements and shacks really need disinfectants than those who live in spacious, well-aired homes! Difficult as it may seem to convince slum-

dwellers that they ought to take preventive measures in warding off disease, the task is not impossible, as is shown by one experience.

The story of one druggist in a very crowded section, the population of which was largely poor and foreign, is interesting for showing how much one man has improved this branch of his trade. He understood the significance of the coefficients of the products he sold, but only explained them to customers when asked, since he thought such technical facts would mean little to them. He called the regular use of a disinfectant the "finest thing in the world," emphasizing especially its necessity in the crowded sections. He carried a large variety of disinfectants and tried to persuade his customers to the regular use of one of these. As a result he was the only one of the thirty store managers who characterized his sales as "very rapid" besides obtaining a profit of 33 per cent on his whole line of disinfectants, the highest profit figure mentioned in this study for the retail trade. Such an experience suggests the possibilities of intelligently directed effort and knowledge. Another policy carried out by this druggist was to make no definite recommendation of a particular brand, but to name the products suited to the specific use and let the customer choose.

Of the three classes the hardware store managers seemed to take the least interest in disinfectant sales. One owner greeted the first question with, "What in the world do you expect *me* to know about disinfectants?" in tones of utmost surprise. Four owners did not know what disinfectant they considered best, used none themselves, and thought there was absolutely no value in using any. Of the others, three favored a widely advertised brand because it was popular, one a ten-cent seller because it was cheap, and one another brand for no reason except that it was the only one he carried. No hardware store carried more than three brands, while four kept only one kind in stock. Where the information was forthcoming these were all coal tar types, except for one store which sold considerable pine disinfectant to apartment houses and garages. Four store owners did not know for what purpose most of their customers bought disinfectants. One of the others hazarded the vague guess that it was for deodorizing, while the others said it was used mostly for general household purposes, cellars, garages, apartments, and farms. As was mentioned above, none had any knowledge of the coefficients.

Five grocers recommended CN because it sold the best, another because it "does the work" and one because it was the strongest. One manager refused to show partiality, saying that CN, Creolin and Lysol were all about as good, that they sould about the same, and that he recommend them all. Grocery stores carried anywhere from one to eight brands of disinfectants, either of the coal tar or chlorine types. Most grocers reported the chief use of these protectives to be housecleaning, only two mentioning sick room uses and quarantine. In contrast to both of the other groups all the managers of grocery stores except one thought the regular use of a disinfectant most valuable and employed one in their stores. The exception when questioned on this subject said, "I

really don't have any idea,—never used one or thought about it."

Druggists on the whole appeared to carry more brands of disinfectants, six to thirteen, and to hold more decided opinions on the matter where the others had seemed vague and uncertain, although two or three druggists were not absolutely sure which of the bottles on their shelves were general disinfectants and which were germicides and antiseptics for personal use. Almost every store owner recognized that the qualities of a good disinfectant vary according to use and none were in the habit of recommending a brand unconditionally to their customers. Reasons for such recommendations were on the whole sensible and fairly scientific, although one man explained his choice on the ground of good sales. Only five of the druggists knew the basis of their various brands. The coal tar type was by far the most frequent. In this group owners more often named sick room purposes as the most common use of disinfectants. This again calls attention to the psychology of buying certain articles in the place that seems most closely connected with its use. Six of these men thought it an excellent idea to use a disinfectant regularly around the store and home. One of the other four had never thought about the matter, (rather a strange circumstance for a druggist!). One druggist confided that he thought it was all "the bunk," saying he had never used one, just as he had never used a mouth wash. (The interviewer noted that his store was not as clean and bright as most.) The other two dissenters had more faith in fresh air, sunshine and soap and water than in disinfectants except in cases of actual disease.

Of those persons who do use disinfectants three-quarters ask for the product by the advertised name. This average is pushed down from somewhere between eighty and ninety per cent because of three very low figures reported by hardware store owners selling in fairly large quantities to janitors, farmers and so forth. These figures considered in combination with the outstanding quantity sold of the only two disinfectants at all widely advertised in popular magazines reveal the strong influence of advertising in this field as in others. It is open to suggestion: Why is the ordinary housewife who purchases for her family told frequently about only two of the some twenty brands of disinfectants for the retail trade?

Profits of the retail merchant on his stock of disinfectants run comparatively high, around 30 per cent on an average. In the majority of cases, even though the percentage of gross profit was lower than that, the managers found that the gross profit on disinfectants was noticeably higher than on the general run of other goods.

One other fact demands a place beside the preceding. Several store keepers volunteered the information that although few people bought disinfectants, those that did, purchased a bottle regularly.

Thus it would seem that the use of disinfectants is a habit of a few but that for these few it has developed into a regular custom. Nearly all who have been won over to the frequent use of this commodity and those who buy it only occasionally, seem to ask for the one or two widely advertised brands. Other brands on the market rarely appear in popular advertising and the general public is no doubt in ignorance of their existence. Just as the consumers appear to be uninformed on the number of disinfectants on the market, so the store owners and managers have, according to the findings of this study, little knowledge of the purpose, value and correct use of disinfectants. Nevetheless, if once the interest of managers in this line of trade were aroused and the urge to buy stimulated more forcefully in consumers, much more extensive and fruitful business might be done. The experience of the druggist mentioned above is representative on a small scale of possible accomplishments.

People who use disinfectants seem to do so regularly and advertising appears to sell it to them. As one druggist said, "Everybody *ought* to use it." Perhaps they ought to be first told about it.

◆

Our Enemy The Termite—by Thomas Elliott Snyder, senior entomologist of the Bureau of Entomology and Plant Quarantine of the U. S. Department of Agriculture. 6¼ x 9⅜, 196 pages, $3.00. The author has studied termites and termite control for twenty-six years, and as a result has been able to turn out a well written book which treats the termite from the economic as well as the entomological point of view.

The first six chapters discuss the place of termites among insects; the different species of termites; their life history and the caste system; their physiology and behavior; their food, etc. Although completely authoritative, the book is so simply written that the layman can understand it without difficulty.

The four remaining chapters discuss the damage that termites do and methods of control. Here practical suggestions are made for building termite-proof houses and for saving structures already infested. The various methods of control now on the market are discussed and the fraudulent ones exposed. The question of a termite menace is sanely treated and the unfounded fears which have arisen from ignorance on the part of the public are dispelled.

The appendix contains recommended provisions for city building codes, for insuring protection against termites as well as specifications for an agreement between the house-owner and a contractor undertaking to remedy termite damage to buildings. Numerous illustrations heighten the value of the book.

◆

Ethyl alcohol was the only solvent tried that removed practically all of the insecticidal substances from derris root, leaving a residue which produced slight, if any, effect on silk worms or aphids. Successive extraction with a water-soluble solvent such as acetone or alcohol, of a residue previously extracted with a water-insoluble solvent removes additional insecticidal constituents. Philip Granett. *N. J. Agr. Expt. Sta., Bull.* 583, 2-12 (1935).

MOTH SPRAYS

Above all, they must not stain,—they must evaporate quickly and leave no residue, —they must kill the moth, and also be non-explosive.

THE big consuming season for moth products is just about a month or so away. Many new products will find their way to market and the old stand-bys will receive their annual sales push. In spite of the fact that moth damage is an all-year-around menace, the seasonal character of this business remains unchanged. Year in and year out, as the American public prepares to pack away its heavy woolen clothing, blankets, and the like, the advertising of moth products blossoms like a rose, only to die along about June, even though the moths still breed and continue their damage to both stored and unstored woolens, furniture, rugs and other things of value to the tune of a quarter-billion dollars yearly.

Special moth products, both those designed to guard against moth infestation and those aimed to kill off the insect after it has made its home and laid its eggs in a plush chair, a winter overcoat, or a Persian rug, have been attracting greater attention during the past few years.

Manufacturers of standard fly sprays have been recommending their products more often specifically to prevent moth damage. The moth plays a larger part in their spring advertising than heretofore. At the same time, the number of moth specialties, that is liquid sprays, has increased. Some of these are the standard fly spray put up in a different container. Some are especially made for use against moths. Some are good and some are tricky products which seem to have a greater psychological appeal than any real ability to kill moths under the conditions where they are usually found.

Moth preparations can be divided into two general classes—the products which are applied to the fabric during manufacture or immediately after and which become an integral part of the fabric, and which are designed for "permanent" protection against moths, and those which give temporary protection by killing the insect already present or by acting as a temporary repellent. The "permanent" products are supposed to withstand dry cleaning, washing, and regular wear and still retain their anti-moth properties. They are usually precipitated in the fibre of the cloth by chemical action during dyeing or by later treatment. Up until recently, many of these products had been offered, but only one or two have lived up to the claims made for them.

The idea of having a substance which would kill or repel moths always present in the fibre is extremely promising, but it has not always worked out well in practice. A complicated patent situation likewise restricted the field of permanent moth repellents. Two of these permanent types which appear to have stood the test of practical usage and which are attracting some attention at the present time are *Eulan* of the General Dyestuffs Corp. and *Konate* of American Cyanamid & Chemical Co. Both of these are made in several forms for use when the cloth is manufactured, and also for application later to finished garments, rugs, and the like, such as during dry cleaning or washing. Some forms are applied in water solution and others in organic solvents.

To the manufacturer of insecticides, moth products of the temporary protection type for application in the general demothing operations in the home and in industry, are of widest interest. These may consist of solid materials, such as paradichlorbenzene or naphthalene, or they may be liquids designed for spraying or wetting. Of the liquids, there are those made with a light petroleum base or other organic solvent, and those with a water base. Of the latter, the only one in common use today is a saturated water solution of sodium silicofluoride, which represents only about a half per cent solution of this material. This is claimed to give permanent moth-proofing to some extent. The material is covered by patent.

The petroleum base sprays, identical or very similar to ordinary fly sprays in most cases, are the more common type found on the market today. In some cases where they are held out as sprays designed solely for use against moths, these liquids contain other products than pyrethrum or derris extract, or chemical insecticidal materials. Paradichlorbenzene is sometimes added to them from two ounces up to eight ounces per gallon. Naphthalene is also added to others in the same proportion. The use of these materials in the sprays is undoubtedly more psychological than physiological as far as the moth and the consumer are concerned. The quick evaporation of the liquid leaves behind on the sprayed article a light coating of fine crystals of para or naphthalene which resembles snow. After the solvent has evaporated, the odor of the crystals remains in good

Wake up to NEW possibilities!!!

New concerns—potential customers for Sanitary Products are starting in business. Other companies are moving to better quarters. Even you old customers now have a little extra cash to spare, to keep their plants sanitary and clean. Conditions are BETTER all around.

To increase sales there's nothing that will help like a few new long-profit Clifton items (and maybe we can save you money on the ones you are now handling).

Write today . . . the only obligation is ours . . . to show how Clifton can give you top notch value and perhaps offer a few new ideas on the following products:—

Semi-Castile Liquid Soap
Foamwel Liquid Soap
Liquid Soap Base
Liquid Soap Dispensers
Cresolene Disinfectant

Bar Oil
Pine Scrub
Deodorizing Cakes
Deodorizing Blocks
Oil Soaps

Metal Polish
Spot Remover
Mopping Varnish
Rubless Wax
Furniture Cream

Insect Killer
Coal Tar Disinfectant
Pine Disinfectant
Theatre Spray
Shampoo Liquid and Base

CLIFTON CHEMICAL CO.

246 FRONT ST. NEW YORK

volume mixed with traces of the perfume from the spray —if any is used—which residual odor is very definitely associated by the housewife or other user with the anti-moth odor of moth balls, "camphor" flakes, or para moth cakes. In fact, there are some moth sprays on the market which are made wholly from solutions of paradichlorbenzene or naphthalene in an organic solvent such as carbon tetrachloride or ethylene dichloride. These sprays contain no pyrethrum, but secure their killing power from the solvent used. Where one of these solvents does come into contact with the moth or its eggs or larvae, it will kill them. These usually carry as much of the para crystals as will dissolve and leave behind the coating of "snow."

While discussing paradichlorbenzene and naphthalene in connection with moth sprays, it might be well to mention the use of these products in solid and crystal form as anti-moth agents. The small blocks more commonly of para than of naphthalene, which have been widely offered for moth damage prevention, do not give the protection which their labels imply. Small four or six ounce cakes,—on which it is stated "just hang in the closet,"—are useless against moths. The Food and Drug Administration has warned manufacturers about this and confiscated merchandise because of the label claims. This situation is well-known to most manufacturers and has been discussed in these pages on numerous occasions. Suffice it to say that unless para or naphthalene are used in the proportion of a pound or more to ten cubic feet or less in a tightly closed chamber, they will not kill or repel moths in any form. Any label recommendations which do not indicate this where claims to kill or repel moths are made, leave the product open to confiscation by the Government.

THE type of moth spray which appears to be finding the widest recommendation for use exclusively against moths, is a slight variation of the standard household fly spray. The field for such products is not only to the householder, but to industrial establishments such as factories and warehouses for furs, furniture, carpets and rugs, clothing, feathers, bedding and blankets, etc., where the insecticide is used periodically and especially before storage for any length of time. Of course, the regular fly spray makes an effective contact moth killer. In fact, the killing of the moth is not the difficult part of the job of anti-moth work, for the moth is easy to kill as insects go. Staining of fabrics, especially those susceptible to grease stains, is the great danger of using many standard fly sprays, whose oil base is frequently too heavy for a moth spray. And in this lies the chief difference between a special moth spray and a regular fly spray.

In discussing the proper characteristics and uses of an effective moth spray with both entomologists and manufacturers in the insecticide field, opinions indicated that a moth spray should (1) not stain any kind of fabric, (2) evaporate rapidly,—more rapidly than a fly spray, (3) have a "sweet" odor,—avoiding rank oils, (4) be non-explosive in accordance with fire regulations of various communities. It was granted that by using a lighter oil and securing more rapid evaporation and reducing the possibilities of staining, the kill of the product would be cut down. However, in a moth spray, this was held to be of less importance and necessary to secure the other characteristics.

Opinions were expressed on the oil for the moth spray base. The average held that an oil with a flash point between 115 and 125 F. by the Tagliabue open cup method, was best for a moth spray. This is in the general vicinity, possibly a trifle higher, than oils recommended for bed bug liquids. The distillation range for the moth oil would average, according to the ideas expressed, from 325 initial up to 450 end point. Some oils, it was pointed out, which are being used for moth liquids, flash under 100 F., one at 95 F. One of the best known products showed a flash of 120 F. and a distillation range from 320 to 500. Some of the real light products carry a proportion of carbon tetrachloride or similar non-inflammable solvent, running as high as sixty per cent, it was stated.

Compared to a flash point of 115 to 125 F. for a moth spray, household fly sprays flash anywhere from 130 up to 200 F. The odorless base fly sprays range in flash point from 160 up to 185 F. Of course, for a moth spray, the odorless oils have all the more desirable characteristics if they can be secured sufficiently light.

In considering the low flash oils for use in moth sprays, the fire hazard must be recognized. The lower the flash, and usually the faster the rate of evaporation, the greater is the fire and explosion risk. Especially where products are sold for use in industrial establishments, is this factor very important. Care to comply with fire regulations is naturally imperative.

Such staining as may occur from the oil base of a moth liquid, especially where it comes into contact with silks and light colored woolens, is held due to the heavy end oils and minute amounts of greasy substances present. Because most moth sprays are recommended to be used in much larger quantity than fly sprays, the chances of staining are greater. Furniture, rugs, clothing, etc., it is held, should be wet well with the spray to secure a penetration to reach any eggs or larvae hidden away in unseen parts of the objects treated. There is the possibility of some staining which might come from other causes than the oil base,—namely, from the pyrethrum or derris resins or other extractives, or possibly from small amounts of certain perfuming materials present.

IN considering the toxic element to be included in a moth spray, there is the choice among pyrethrum which is most commonly used, derris derivatives, and such chemical insecticidal materials as are available. Of the latter, the only products being used are the organic sulfocyanides, otherwise termed thiocyanates. The latter are used sometimes alone but chiefly in connection with pyrethrum, as is also the case with derris extractives.

NEWPORT

PINE OILS

GENERAL NAVAL STORES COMPANY, Inc.

Address Our Main Office:
230 PARK AVENUE
NEW YORK CITY

Plants: De Quincy, La.
Pensacola, Florida.
Bay Minette, Alabama.

Opinion held that whereas an ordinary fly spray should carry from 12 to 16 ounces of pyrethrum per gallon, in a moth spray the extractives of 8 to 12 ounces per gallon, or its equivalent in killing power, are ample, particularly in view of the manner in which a moth spray is used. This gives a product with a low Peet-Grady rating, but one which is effective against moths which are considerably easier to kill by contact than house flies. Of course, where insecticidal claims are made for a moth spray, it is subject to all the restrictions and regulations of the Food and Drug Administration, just as in the case of a fly spray, and this fact must be taken into consideration in designing the label for the container. The wording of a fly spray label is usually satisfactory for a petroleum base moth spray.

The odor for a moth spray is subject to much variation in opinion. Some believe that the odor should be tied up with the type of odor which the consuming public has always associated with products for use against moths,—namely naphthalene, or possibly paradichlorbenzene. Hence, they dissolve anything from four up to eight ounces of either of these materials to each gallon of spray, and use no other perfume. Some use one of these materials and also add some other odor. Cedar for moth use, naturally, is the most popular odor. It is used straight and in numerous variations, usually cheapened with some other odor. A few moth sprays carry the same odor as the average fly spray, and have no suggestion of the anti-moth use. Some floral bouquets, both heavy and light, in moth liquids, are on the market, but this type of odor does not seem to fit into the picture of a moth spray very well. As in the case of fly sprays, some moth products carry too much odor and others not enough. If it is cedar, it can be well perfumed,—if it is anything else, it should not be too heavily perfumed. This is probably a good rule by which to go.

In concluding, recommendation of the use of general fly sprays for moth work might be discussed to advantage. Every manufacturer knows,—or should know,—his fly spray. He knows more about its staining possibilities than most other people. He knows if he is using a clean, high grade oil, and he also knows if he is using a cheap, rank, ordinary kerosene. He should have a pretty good idea just how far he can recommend his product for heavy spraying on clothing, furniture, rugs—and white flannel trousers, if you will. Experience proves that more fly sprays stain than do not stain, and that all in all, for heavy spraying,—almost a wetting down in some instances,—the average fly spray is too heavy,—that it may stain, and that it will take far too long to evaporate. Maybe the day is soon coming when the insecticide industry is going to see each manufacturer with three or four grades of spray,—one for flies, one for moths, one for bed bugs, and so on,—when the all-purpose spray will not suffice to satisfy the consumer. At least, the view that such a day is here is held by more than one person with many years of experience in making and selling liquid insecticides.

National Association of Insecticide *and* Disinfectant Manufacturers

OFFICERS

President.....**W. B. Eddy**
Rochester Germicide Co., Rochester, N. Y.

1st Vice-President.....**W. G. Griesemer**
Black Flag Co., Baltimore, Md.

2nd Vice-President.....**H. M. Clark**
Dr. Hess & Clark, Inc., Ashland, O.

Treasurer.....**John Powell**
John Powell & Co., New York

Secretary.....**John H. Wright**

BOARD OF GOVERNORS

C. P. McCormick.....**McCormick & Co., Baltimore**
J. L. Brenn
Huntington Laboratories, Huntington, Ind.
Dr. Robert C. White
Robert C. White Co., Philadelphia
H. W. Hamilton.....**White Tar Co., Kearny, N. J.**
S. S. Selig.....**The Selig Co., Atlanta**
W. J. Zick.....**Stanco, Incorporated, New York**
H. A. Nelson.....**Chemical Supply Co., Cleveland**
Wallace Thomas.....**Gulf Refining Co., Pittsburgh**
H. W. Cole...**Baird & McGuire, Inc., Holbrook, Mass.**
R. H. Young.....**Davies-Young Soap Co., Dayton, O.**

MEMBERSHIP

Active — Open to manufacturers and wholesale distributors of disinfectants, germicides, deodorants, insecticides, liquid soaps, polishes, and allied products. Dues —$75.00 per year.

Associate — Open to firms supplying raw materials, containers, equipment, etc., to the membership. Dues—$50.00 per year.

For further details, communicate with

NATIONAL ASSOCIATION OF INSECTICIDE & DISINFECTANT MANUFACTURERS

John H. Wright, Secretary

122 E. 42nd STREET NEW YORK

FOR PARA
Trust a name you know
Niagara

Chances are that you know Niagara Alkali Company for the excellence of its caustic potash or caustic soda. But PARA (unadulterated Paradichlorobenzene) is one of our important products too—and you can trust the name *Niagara* to indicate its superior quality . . . its regularly uniform quality in every shipment. May we prove that it is worthy of your confidence?

NIAGARA ALKALI COMPANY

9 EAST 41st STREET, NEW YORK, N. Y.

Associated with Electro Bleaching Gas Company, Pioneer Manufacturer of Liquid Chlorine.

Stock Sprays Evaluated

A Suggested Method for the Practical Rating of Stock Sprays as Based on a Comparative Study of Eight Nationally Advertised Brands*

ANY discussion of live stock sprays must be undertaken with the full knowledge that it means opening a highly controversial subject and one on which there exists a diversity of conflicting opinions. It is understandable but scarcely helpful that this situation has existed because of the absence of any generally accepted standards of performance or methods of comparison. The inevitable result has been a multitude of conflicting claims as to the relative merits of different materials and combinations of them which has induced a state of almost helpless perplexity on the part of stock spray manufacturers.

The standard for a perfect stock spray demand first of all absolute safety to the animal. This can be met and there is little, if any, excuse for failure to meet it on the part of any commercial live stock spray. Repellency and toxicity standards are not more difficult to set but much harder to meet and vital as they are, it is unwise to sacrifice safety in the attempt. Assuming safety is assured, the really perfect stock spray should give a quick and complete kill of flies when it is sprayed in the barn or dairy and when sprayed on the animal should have a degree of repellency sufficient to keep the animal completely free from flies for at least twelve hours. No commercial sprays ever have come up to such a standard and probably none ever will but relative efficiency must be measured by the degree to which they approach it.

Since all three factors of safety, repellency and toxicity are relative rather than absolute, it became necessary to devise some procedure for rating the sprays on the various points. This procedure is presented in some detail in the following with no thought that it is a perfect solution of the problem or that valid objections cannot be made to many features of it. There is room for wide differences of opinion as to the relative weight which should be given to the various factors used in arriving at the totals. The weights used were selected on the basis of experience but are, nevertheless, semi-arbitrary.

First of all, allowing 100 percentage points for the perfect spray, it was decided to allot these points as follows, and score each spray tested in accordance with its rating on each point:—

Physiological Properties	30 points
Repellent Properties	30 points
Toxic properties	25 points
Physical Properties	15 points
Total	100 points

In making this analysis three points are taken into consideration and scored, with appropriate weight given to each as follows:—

Freedom from Skin Irritation	40
General Physical Condition	25
Post Mortem Findings	35
Total	100

Since physiological properties get a rating of 30 points in the general total, a spray rating 80 in the test would be given 24 points out of a possible 30.

Freedom from skin irritation is determined mainly by observation on white rats, using adult males of the same age in the comparison. One square inch of hair is shaved from one side of each rat, including the control one. When several sprays are being tested a rat is used for each spray and one unsprayed one is kept under exactly the same conditions as a control. Each rat is sprayed every morning for five days using each time 0.1cc of his spray on the shaved inch and the same amount on a similar area on the unshaved side.

General physical condition is judged on the rats by close observation of activity as compared with the control, by food and water consumption, bowel activity and loss or gain of weight as compared with the control. Post mortem examinations involve a close check of skin damage under a low powered microscope and, of course, a detailed search for possible indications of lesions of the vital organs, especially the lungs, liver and kidneys, and intestinal hemorrhages.

The rating of 15 points which is allowed in the final

* Data supplied by R. J. Prentiss & Co., New York, and being incorporated in full in a current publication on stock spray evaluation.

ANOTHER PROOF

That the Industry and the Public Welcome a Better Insecticide

LETHANE 384

Manufacturers of insecticides and Professional Exterminators in each of the cities indicated use LETHANE 384 in making a better product.

RÖHM & HAAS CO., INC.

Manufacturers of Chemicals

222 West Washington Square, Philadelphia, Penna.

total, is based on three points which are weighed as follows:

Color of Spray	15
Odor of Spray	35
Properties of Base	50
Total	100

A spray which has any distinct color of any kind is not desirable, as it may leave stains on light colored animals and in buildings, nor should the base oil or any of the other ingredients be of a nature to bleach or alter the natural color of the hair.

Odor is rather more important than would be supposed from the general lack of attention to it. A good live stock spray should have a mild and not unpleasant odor. Sprays having pungent, penetrating odors are not at all desirable around live stock, particularly dairy cows, or in milking barns. The danger of tainting the milk always exists when sprays of this type are used.

The properties of the base oil for the spray are important even aside from the possible physiological effects. It must not leave the hair sticky, gummy, dry, harsh or brittle. Briefly, a really suitable base oil for stock sprays should have the following properties:

1—A viscosity around 45 to 50 Saybolt seconds at 100° F.

2—A fairly flat distillation curve with most of the oil distilling between 550° F. and 650° F. and with an end point of not over 700° F.

3—A reasonably low sulfur content, preferably not over 0.4 per cent.

4—An unsulfonatable residue of 70 per cent or higher, meaning a relatively low proportion of unsaturated hydrocarbons.

Several, if not all, of these recommendations are controversial, as while many of the commercial sprays use base oils fully up to these specifications, others maintain that they are unnecessarily high and that equally satisfactory results can be obtained with oils of lower quality and lower cost. A lighter oil of the kerosene type is apt to cause burning because of its solvent and penetrating powers, while a heavier one of high boiling point can cause the same result on account of its very slow evaporation and the longer period it remains in contact with the skin.

THE ultimate test of the repellent value of a stock spray is the degree of protection from flies which it gives the animals in the barn and in the fields, and difficult and time-consuming as such comparative tests are, there is no satisfactory substitute for them. All preliminary results and conclusions must get their final check from field tests under carefully controlled conditions. The method devised was to use a cage containing about 100 flies which are deprived of food and water two hours before the test begins. A four-inch watch glass is sprayed with exactly 0.25cc of the spray and in the center of it is placed a piece of bread one-half inch square which has been moistened with water and sprinkled with two grams of sugar. A similar glass is prepared in the same way for the other spray being used for comparison or else a blank is used, in which case the glass is unsprayed.

The glasses are then placed in the cage and at thirty minute intervals a two minute count is made of the flies lighting on both pieces of bread. Flies that light and remain for five seconds or longer are counted as "lights," while those that only touch the bread and fly away are called "touches."

As a rule, these tests are conducted for two days covering a total of fifteen hours of observation and approximately thirty two-minute counts. The totals of "lights" and "touches" on the different pieces of bread provide the measure of comparison. Close observation of the behavior and condition of the flies throughout these tests gives some extremely valuable information as to their reaction to different sprays or materials.

The final check of the relative repellency of sprays must be made in the field and on the cow and under the most carefully controlled conditions if the figures obtained are to have any value whatever. Differences in the relative attractiveness of cows to flies are so great that it was found desirable to give up using different cows for a comparison and to fall back on the idea of determining the degree of protection by a comparison between the sprayed and unsprayed sides of the same cows.

Each cow is sprayed on one side, including legs, neck and stomach, with 25cc of spray, the unsprayed side being protected by a cover during the process. For eight hours a day over a period of four days a count is made every thirty minutes by two men of all the flies on the sprayed and unsprayed side of each cow, making a total of sixty-four counts. These counts are totalled both for each cow and for the several cows on which the same spray is used.

The total of flies on the unsprayed side gives the check and the relatively smaller number counted on the sprayed side permits a calculation of the degree of protection given by the spray. For example, taking the total count of the unsprayed side as 100 per cent, a count on the sprayed side of 32 per cent as many would mean a 68 per cent degree of protection afforded by the spray.

The figures obtained, however, are susceptible of more detailed interpretation and give valuable information on other points. Most important of these, perhaps, is the question of the length of time a spray remains effective on the animal. Since the cows are sprayed in the morning and the count made at half hourly intervals, it is easy to trace the relative rapidity with which different sprays lose their repellency and toxicity by comparing the percentages of protection afforded immediately after application and the extent to which this lessens as the day goes on.

In the ratings repellency counts 30 points and a spray giving perfect protection would receive the full 30 points.

Perfumes For

PARADICHLORBENZENE
NAPHTHALENE

Specially prepared for perfuming these popular products. We can also supply individual odors for your own use.

A few popular types:

American Thistle No. 1010	$2.25
Forest Bouquet No. 42	4.00
New Mown Hay No. 319	2.75
Oriental No. 88-A	2.50
Rose No. 310	2.50
Trefle No. 619	2.85
Violet No. 611	3.10
Wild Flowers No. 5300	1.75

Prices quoted with or without color.

National Association of INSECTICIDE DISINFECTANT MANUFACTURERS Incorporated 1914

P. R. DREYER INC.

12 E. 12th Street New York

"It's the Odor that Sells the Product"

The highest rating given any commercial spray yet tested is 75 per cent or 22½ points, but 80 per cent or even 85 per cent efficiency is possible without running the cost up to unreasonable levels; yet comparatively few sprays now on the market are entitled to a rating of over 50 per cent or 15 points.

TOXICITY is counted at 25 points in the final rating and is determined by the standard Peet-Grady Method, the only modification being the use of cloth on the floor of the chamber. A soft loosely woven cloth which must be free of lint will absorb oil faster than paper and lessens the chance for the flies to get excess oil on their bodies after being knocked down by the spray vapor. Tests made with a bare floor give a high death rate for this cause and paper shows higher than cloth.

Sprays are rated on knockdown and final kill, which should be at least 80 per cent at the end of 24 hours for the spray to get a high rating. Knockdown is important enough from the psychological angle but from the standpoint of practical results in the dairy barn it means more to actually kill most of the flies hit by the spray than it does to knock down 90 per cent or more and have half of them recover in a few hours. For that reason, high ratings have not been given to sprays with a spectacular knockdown and a poor kill.

When the Peet-Grady test is used for the evaluation of live stock sprays, the results should be weighed with full allowance made not only for the inherent inaccuracies of the method but for the fact that the results are relative rather than absolute and that the chief function of the test is to make a relative comparison of several sprays at the same time and under identical conditions. Due regard must be kept for the fact that these conditions bear little or no resemblance to those under which the spray is actually used by the consumer and for the fact that a Peet-Grady knockdown and kill, however good it may be, is only one of the requirements of a really effective stock spray.

To illustrate the practical usefulness of these methods of examination and relative weight and at the same time, to show how widely commercial sprays vary in the final ratings, it is possible to include here the detailed results obtained in the comparative test of eight commercial sprays. These eight sprays were chosen among the nationally advertised stock sprays.

Four tables are given below, showing the rating given on each of the four points, Physiological, Repellent, Toxic and Physical Properties and a fifth showing how these ratings are combined to give the final score.

The sprays were judged on the following properties, and each scored as to its rating on each point.

Physiological Properties	30 points
Repellent Properties	30 points
Toxic Properties to Insects	25 points
Physical Properties	15 points
	100 points

Physical Properties
Physiological Properties

1. Color	15 points
2. Odor	35 points
3. Base	50 points

Physiological Properties

1. Freedom from skin irritation	40
2. General physical condition	25
3. Post mortem findings	35

Code No.	% Perfect Color	Odor	Base	Score
M-22	10	10	20	40
M-23	10	10	20	40
M-24	15	30	40	85
M-25	15	25	35	75
M-26	8	5	20	33
M-27	15	25	45	85
M-28	10	25	45	80
M-29	10	20	30	60

NOTE:—These observations were made when the samples were examined for toxic properties in the Peet-Grady chamber, and when the sprays were tested on the animals.

A complete chemical analysis was made on the base oil of all the eight livestock fly sprays.

Toxic Properties
Peet—Grady Analysis

Code No.	% Knockdown 5 Min.	10 Min.	% Kill 24 Hrs.	48 Hrs.
M-22	20	36	33	33
M-23	30	50	50	50
M-24	81	95	90	95
M-25	58	90	82	85
M-26	10	25	22	25
M-27	52	60	58	60
M-28	53	82	80	82
M-29	78	97	73	80

Code No.	% Perfect Skin	Physical	Post Mortem		
M-22	35	15	30	=	80
M-23	15	12	20	=	50
M-24	25	20	35	=	80
M-25	0	5	10	=	15
M-26	25	15	30	=	70
M-27	35	25	35	=	95
M-28	35	20	35	=	90
M-29	20	20	25	=	65

Repellent Properties

Code No.	Percent Perfect
M-22	40
M-23	37
M-24	70
M-25	52
M-26	35
M-27	48
M-28	75
M-29	55

NOTE:—The results recorded were obtained both in the laboratory and in the field, which included tests made in the barn and in direct sunlight. The final percentage was based on an average of field and laboratory findings.

The table of ratings on repellent properties discloses the interesting fact that only two of the eight sprays proved entitled to a score of over 55 per cent and that whereas six of the sprays fell in the relatively narrow range of 35 to 55 per cent these two tested 70 per cent and 75 per cent respectively.

Summary—Final Score
Properties

Code No.	Physiological	Repellent	Toxic	Physical	Final Score
M-22	24	12	8	6	50
M-23	15	11	12½	6	44½
M-24	24	21	24	13	82
M-25	4½	15½	21	11	42
M-26	21	11½	6	5	43½
M-27	28½	14½	15	13	71
M-28	27	22½	20½	12	82
M-29	19½	16½	20	9	65

Only a glance at the final score given in the last table is needed to show the amazingly wide variations in total efficiency in these eight sprays. Two and only two get a rating above 75 per cent and these happen to be identical at 82 per cent, although a detailed study of the figures in the other tables indicates that while M-24 and M-28 obtained the same final rating, they varied appreciably

(*Turn to Page* 109)

★ PRICE
★ QUALITY
★ CUSTOMER SATISFACTION

ALL GUARANTEED BY 38 YEARS OF EXPERIENCE

DISINFECTANTS
INSECTICIDES
CLEANING COMPOUNDS
ETC.

WRITE FOR SAMPLES, PRICES AND INFORMATION

THE CHEMICAL SUPPLY COMPANY

"YOUR MOST LOGICAL AND ECONOMICAL SOURCE OF SUPPLY"

2450 CANAL ROAD » » CLEVELAND, OHIO

Reilly

COAL TAR PRODUCTS

For the Soap and Disinfectant Industry

CRESOL
CRESYLIC ACID
CRESOL U.S.P.
XYLENOL
TAR ACID OILS
NAPHTHALENE

REILLY TAR & CHEMICAL CORPORATION

Executive Offices Merchants Bank Building, Indianapolis, Indiana

2513 SO. DAMEN AVENUE, CHICAGO, ILLINOIS 500 FIFTH AVENUE, NEW YORK, N. Y. ST. LOUIS PARK, MINNEAPOLIS, MINN.

FOURTEEN PLANTS TO SERVE YOU

Insecticide Sales--Up or Down?

A Brief Study to Find Out What Are the Chief Obstacles in the Way of Increased 1936 Sales

By CHARLES SOUTHERN

WHAT can the seller of packaged insecticides do to increase sales through retail outlets over the coming season? This is one of a series of questions to which a representative of SOAP has been seeking the answers in a recent study conducted among a limited number of retail outlets for insecticides. The study among drug, grocery, hardware and department stores, has been supplemented by a small consumer survey among approximately 100 representative housewives in various walks of life.

The answer to the above question seems to be that if the manufacturer of insecticides expects increased sales, he must make a more thoroughgoing effort to educate potential buyers on what insecticides are, where they can be obtained, and how they should be used. Perhaps one of the strongest elements of sales resistance in the retail selling situation is the name of the product. Of 100 women interviewed, 14 readily admitted that they did not even know what an insecticide is.

As to the proper pronunciation of the word "insecticide", there were dozens of variations. Those in attendance at industry conventions in recent years may recall that even hotel advertising agents and radio announcers share this ignorance of the general name of the industry's products, with individual interpretations ranging from "insectide" to "insectitude". One of the first facts of retail merchandising is that buyers hesitate to ask for something the name of which they cannot pronounce. With such a tongue-twister as the word "insecticide" to start with as an initial handicap, the industry must redouble its efforts to make potential buyers familiar with the name of its product.

An even larger percentage of housewives, while familiar with the products themselves through advertising, seem to have no idea where to go to buy an insecticide. The most common answer to our question "Where would you go to buy an insecticide?" was "the drug store". A smaller number picked the department store, and only a handful said the grocery store or the hardware store. As high a percentage as 27 per cent indicated that they would not know where to go to buy an insecticide, and one of these pointed out in explanation that the insecticide manufacturer seldom tells the householder in his advertising where insecticides may be obtained.

On the correct method of use of insecticides, housewives are still woefully uninformed. Apparently influenced by early advertising illustrations, most of them still think of an insecticide sprayer as a gun and try to shoot the insects down by direct application of the spray. When after making a direct hit they see the fly or mosquito still continue to navigate, they are apt to consider the product inefficient. We found too that very few users apply a sufficient quantity of insecticide in their spraying, and many are ignorant of the fact that windows should be shut and the sprayed room closed for fifteen or twenty minutes. The classic example, of course, is the woman who tried to spray an open screen porch in a small gale. Unfortunately such ignorance of correct methods of use is certain to bring dissatisfaction and unfavorable comment.

In our investigation of retail outlets, it was gathered that 1935 had been a moderately good season for sales. Those outlets experiencing a decrease attributed the cause mainly to a shifting of trade to the drug stores. Of all the drug stores visited, 90 per cent reported an increase in their sales last year over the 1934 season. Just why the average housewife should buy her insecticide in the drug store, when her shopping is normally done at the local grocery store, does not seem quite clear. Perhaps drug stores are generally thought of as better places to get a bargain, or perhaps the buyer does not think of getting a product such as an insecticide at the same spot where she buys her foodstuffs.

Another angle on this situation was contributed to by a neighborhood grocer who explained that the customers who knew him best hesitated to let him know that they had an insect problem in their homes, and rather preferred to shop for an insecticide in the drug or hardware stores where they were not so well known. This is particularly so in the case of bed bug and roach preparations, with the result that drug and hardware stores share the greater percentage of this trade.

The grocery store operators cannot fully account for the decrease in their business, but aside from the points noted above, they blame insecticide manufacturers for not cooperating with them by furnishing advertising and display material. Many insecticides, they say, are packed in containers which cannot easily be stacked, and must be put under the counter and out of the customer's view. Naturally the grocer neglects to push them. Several grocers suggested that the cases in which insecticides are shipped be arranged so that they could be opened and converted into display cartons. There are

DI-BUG

PYRETHRUM

POWDER *and* EXTRACTS

Biologically tested for kill in our Peet-Grady laboratory. Your customers want killing power. Buy DI-BUG Products and insure your success. DI-BUG Pyrethrum Extracts are made with

SPRAYSENE

The scientific insecticide base free from kerosene odor. Uniform—175° F. flash — effective distillation range.

SHERWOOD
PETROLEUM COMPANY, Inc.
BUSH TERMINAL, BROOKLYN, N.Y.

Branches or Agents in Principal Cities

BARRETT CHEMICALS

Barrett
CHEMICALS

CRESOL U. S. P.
When you use Barrett Cresol U.S.P. in a Cresol Compound, you can be sure of the best possible solubility of your compound and that it will contain less than 5% Phenol, thereby falling well within the limitations of the Federal Caustic Poisons Act.

TAR ACID OIL, 10%-75%
These carefully blended oils range in tar acid content from 10% to 75%. They are used in the manufacture of animal dips and disinfectants.

CRESYLIC ACIDS
Ninety-nine per cent and 95% grades of various distillation ranges depending upon requirements.

PHENOL U.S.P.
Pure white crystalline products with minimum melting points of 39.5 and 40° C.

HYDROCARBON OIL
A neutral coal-tar oil for use as a base for high coefficient disinfectants.

SOLVENT NAPHTHA
Approximately 25° C. boiling range.

●

THE TECHNICAL SERVICE BUREAU of The Barrett Company invites your consultation with its technically trained staff, without cost or obligation. Address The Technical Service Bureau, The Barrett Company, 40 Rector Street, New York.

THE BARRETT COMPANY
40 Rector St., New York, N.Y.

many products in the drug and grocery field which are displayed this way, with good results in the form of increased sales.

Another suggestion was that in connection with such displays educational pamphlets be distributed telling the housewife the various ways insects may get into the home and showing her how an insecticide may most effectively be used in their control and eradication. Such educational material could stress the importance of insects as disease carriers. It should be explained to the user just what insecticides are composed of and how they kill. Keeping insecticides in the class of mysterious chemical killers, it was pointed out, makes the housewife fearful about their use. Only if she understands how safely and under what limitations they must be used, can she be expected to use them freely and competently. It is the job of the manufacturer to assist the ultimate sellers in seeing that this information gets into the consumers' hands.

—— ♦ ——

CATTLE SPRAYS

(*From Page* 105)

in the scoring on the different points. On the other hand, four out of the eight rated at 50 per cent or lower and one of these, M-25, was rated only 4½ points out of a possible 30 on the very important point of physiological properties.

If even the best known and most highly regarded sprays show variations in efficiency ranging from 42 to 82 per cent, it is obvious that the stock spray situation is hardly satisfactory from the standpoint of either manufacturer or user and the consumer can hardly be blamed for becoming so confused and discouraged that he all too frequently either fails to use a spray or buys one at a ridiculously low price with his eye shut on the theory that probably none of them are much good and the less he pays, the less money he wastes.

It is perfectly possible to manufacture at a reasonably low cost, stock sprays which are entirely safe from the physiological angle and which possess sufficient repellency and toxicity to flies to entitle them to a ranking of 85 per cent or even 90 per cent according to the method of rating described here and to a correspondingly high ranking by whatever other method anyone may care to use.

—— ♦ ——

Efficient insecticides, newly synthesized from fatty alcohols of 8 to 14 carbon atoms, have been studied. Rhodanates of these alcohols are particularly effective against aphids, thrips and red spiders, and represent a distinctly new step in their control. These compounds are related to the newest detergents which are also derived from long-chain fatty alcohols. E. W. Bousquet, Pl. L. Salzberg and H. F. Dietz. *Ind. Eng. Chem.* **27,** 1342-4 (1935).

TOXICITY OF ROTENONE POWDERS

By D. G. Hoyer and M. D. Leonard

Too few buyers of cube and derris have given consideration to anything other than the rotenone content of these materials. Jones, Campbell and Sullivan (Journal of Economic Entomology, 28 (2): 285-292, 1935) as well as others have shown that the total toxicity of rotenone-bearing root is greater than the amount of rotenone present would indicate. It is not necessarily true that one rotenone-bearing powder is more toxic than another simply because it contains a higher percentage of rotenone. The amounts of the other toxic extractives must therefore be taken into consideration.

Rotenone-bearing root has been offered to the trade almost entirely on the basis of its rotenone content alone, and this has determined its price. In most instances the powdered root is diluted with a carrier such as talc, clay or sulphur to a given rotenone content without regard to the amount of total extractives present in the finished dust. Since the extractives other than rotenone possess toxicity, it naturally follows that the powdered root which has the greatest relative amount of extractives upon dilution to a given rotenone content would make the best dust.

A more accurate method of comparing the toxic value of various rotenone-bearing roots is to determine the ratio between the percentage of rotenone and the percentage of total extractives present. The figure thus obtained may be called the "Index of Relative Toxicity." The higher this index figure is, the greater the amount of total extractives in the diluted dust, and therefore the greater is its toxicity. This so-called Index of Relative Toxicity is offered as a suggestion at this time as being a more accurate method of expressing the full toxic value of rotenone-bearing roots.

The value of this Index of Relative Toxicity when comparing powdered rotenone-bearing root may be illustrated by the following actual examples:

Sample Number	% Rotenone	% Total Ether Extractives	Index of Relative Toxicity	Total Ether Extractives in Dusts Standardized to 0.75% Rotenone Content
328	4.54	20.47	4.5	3.38%
350	5.19	22.32	4.3	3.22%
247	4.89	20.41	4.2	3.13%
349	5.08	20.61	4.1	3.05%
348	5.29	21.40	4.0	3.03%
262	4.46	17.57	3.9	2.92%
313	5.02	14.39	2.9	2.14%
70	4.92	13.92	2.8	2.11%
261	6.61	16.54	2.5	1.87%

From the above table it may be observed that:

1. The percentage rotenone alone is not an accurate index of toxicity.

2. Roots having the greatest relative amounts of ether extractives are the best.

3. By the use of the Index of Relative Toxicity the value of several roots, regardless of species and source of origin, may be put on the same basis for comparison.

AMERICA'S FINEST OCEAN FRONT HOTEL

Socially Comfortable

" . . . Socially comfortable, if you know what I mean . . . a lot of our own crowd . . . and the bunch we barged around with on the Riviera. They're all here at the Roney Plaza, for if you really go in for Miami Beach resort life in the finer sense, you spend most of your time here anyway.

"The Beach and Cabaña Club are gorgeous. Our suite overlooks the ocean, the service is smartly continental and I *guessed* the *chef's* name after our *first* dinner.

"Promised to golf at two with John, then to dance in the Palm Gardens at five, so more of this later. Hurry down . . . you're missing the best winter *ever*."

Roney Plaza

MIAMI BEACH

FOR PARTICULAR INFORMATION AND RESERVATIONS ADDRESS
EDWARD B JOUFFRET, MANAGING DIRECTOR, RONEY PLAZA, MIAMI BEACH, FLORIDA
or New York office, 521 Fifth Avenue, Suite 2421, Chicago office, 180 North Michigan Avenue, Suite 1015

NEWS.....

Komo Insecticide Sold

Komo Chemical Co., Philadelphia, manufacturers for some years past of Komo liquid insecticide, has been purchased by the Huxley Laboratories, Inc., New York. The Komo plant, trade name, materials, etc., are included in the sale. The new owners plan to push the sale of Komo extensively this season. Small, Kleppner & Seiffer, Inc., New York advertising agents, will handle the advertising account for Komo.

Coopers Specialty Division

Coopers Creek Chemical Co., coal tar products, West Conshohocken, Pa., has recently set up a specialty division. A general line of coal tar and pine disinfectants, household insecticides, live stocks and horticultural sprays will be offered.

Disinfectant Advertising

A complaint has recently been issued by the U. S. Federal Trade Commission against the manufacturer of a sodium hypochlorite disinfectant alleging unfair representations in advertising. Among representations alleged to have been made are the following: "That it will completely and safely remove stains, kill odors instantly, destroy or kill germs, disinfect as it cleans, sterilize dishes," and representations to the effect that it may be taken internally, as "rigid tests prove it safe."

Criticize Insecticide Bill

Objections have been expressed by manufacturers of insecticides and fungicides to certain provisions of Massachusetts House Bill 1101 dealing with the packaging and labeling of these products. The bill provides that such products be labeled specifically as insecticides or fungicides. While certain manufacturers point out that they have no deep-seated objection to so doing, they would prefer to avoid unnecessary changes in their labels where the present labels clearly indicate the purpose for which the products described are to be used but do not specifically refer to them as insecticides or fungicides. Another section of the bill, which classes as adulterated, products which are injurious to vegetation, is also objected to. This section should read, say critics of the bill "when used *according* to directions of the manufacturer."

Deodorant "Fumettes"

A new deodorizing product, similar in appearance to the ordinary kitchen match, is being sold by Fumettes, Greenwich, Conn. In use a single "Fumette" is struck on the side of the box and then inserted in a small hole in the box top. It is said to burn without flame, giving off an odor dissipating fume. The new product is packed thirty to the box and sells at a 25c price.

N. J. Labeling Bill

A bill has been presented in the New Jersey Assembly (No. 118) which would require a complete formula disclosure on labels for proprietary medicines, including all antiseptics and disinfectants which make any recommendations for use in or on the body.

F. T. C. Cites "Sib" Maker

Alleging unfair representations in advertising matter and radio announcements in the sale of a solution for household uses, the U. S. Federal Trade Commission has issued a complaint against Strong, Carlisle & Hammond Co., Cleveland, manufacturer of "SIB, Sunshine in Bottles," a sodium hypochlorite solution. Among representations alleged to have been made are the following: That "SIB" will completely and safely remove stains, kill odors instantly, destroy or kill germs, disinfect as it cleans, sterilize dishes, and representations to the effect that it may be taken internally, as "rigid tests prove it safe." The complaint alleges that these assertions are misleading and that their use constitutes unfair competition with dealers in the same class of products who do not untruthfully advertise them. The respondent has been allowed until Friday, March 6, to show cause why the Commission should not issue against it an order to cease and desist from the practices alleged.

Barrett "Moth Nuggets"

Barrett Company, New York, has recently added to its line of packaged moth products a new naphthalene preparation which will be sold under the name "Moth Nuggets". The nuggets are irregular in shape and of a crystalline character. They will be sold in one pound packages through the retail trade, each package having a cellophane window.

Boyle Buys 3 in 1

A. S. Boyle Co., Cincinnati, maker of "Old English" wax and the "Waxer Polisher", has recently taken over the Three-in-One Oil Co., oil and furniture polish. A. S. Boyle Co. is a subsidiary of American Products Co. Prior to the sale the Three-in-One Oil Co. was owned by Sterling Products, Inc., Wheeling, W. Va.

California Poison Laws

At a recent meeting the California State Board of Pharmacy added fluorine compounds and derivatives and calcium cyanide to schedule B of the State Poison Law, and products of this type cannot now be sold legally in that state without the official poison label and antidote. The California Department of Agriculture has been continuing its efforts to work out a uniform method of labeling economic poisons containing rotenone. California requirements have been revamped somewhat to conform with those of the Federal Government so that the total active ether extractives from the particular rotenone bearing root are now expressed on the labels. State officials report prog-

Federal Finishes For Every . . . . Floor . . . . . .

wood — linoleum — painted — varnished — concrete — cement — rubber tile — soft asphalt composition —cork—terrazzo, etc.

Why Guess?

When it's a question of what kind of finish for a particular kind of floor. Consult FEDERAL, and be SURE.

Sent Free

to Distributors, and Manufacturers of Soaps, Chemicals, Disinfectants, etc.

it tells how to prepare and finish all kinds of floors. Helps you solve floor problems in schools, public buildings, institutions, etc.

Send Coupon Now for Your Free Copy

COUPON

FEDERAL VARNISH CO.
Dept. 38—337 S. Peoria St., Chicago, Ill.
Kindly send without cost or obligation your
FLOOR FINISHING & MAINTENANCE MANUAL.

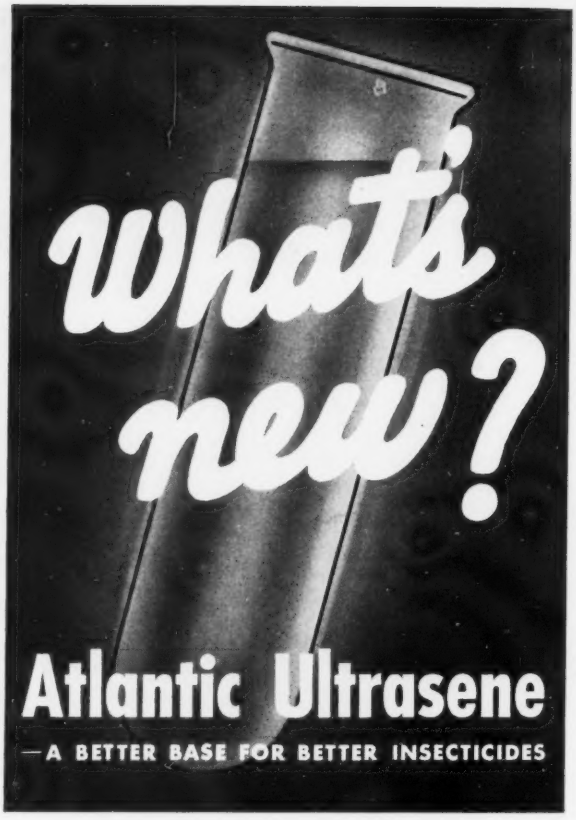
Name .....

Company .....

Address .....

City ..... *State*.....

FEDERAL VARNISH CO.



● A bow and arrow, a buggy, a water wheel—these things were good in their day. But who would think of using them now, when science has developed rifles, automobiles and steam turbines? Each new development of science means that some instrument, material or method can be discarded for *something better.*

This is why kerosene is no longer the favored insecticide carrier. No progressive manufacturer would employ kerosene when ATLANTIC ULTRASENE is available. ULTRASENE has no petroleum odor. It leaves no oily residue. In short, ULTRASENE represents *progress,* a great improvement in efficiency over kerosene.

Why not join the other modern manufacturers who are using ULTRASENE as a spray-base? A letter will bring you liberal test samples. And our technical department is always glad to help you with any problems you may have. Write to The Atlantic Refining Company, Specialty Sales Department, 260 South Broad St., Philadelphia, Pa.

ATLANTIC ULTRASENE

ress in their drive to have removed from the labels of rotenone products such phrases as "non-poisonous" and "absolutely safe."

Disinfectants in Sumatra

British disinfectants are said to be popular in North Sumatra. Among the well-known brands on sale are: "IZAL," manufactured by Newton, Chambers & Co., Ltd.,; "HYCOL," made by Pearsons Antiseptic Company, Ltd., and "IALINE," manufactured by Burt, Boulton & Haywood, Ltd. "IZAL" and, it is believed, most of the other brands sold in the Trinidad market, are usually packed in the following sizes: 1, 2, 5 and 10 gallon cans and 40 gallon barrels. The 1, 5 and 10 gallon sizes are reported to be popular among the plantations and other large users of disinfectants. Chinese retailers generally buy either the 10 or 40 gallon size in order to bottle the disinfectant in one liter size bottles for sale to small consumers.

Derris Bulletin Available

"Derris Root in British Malaya" is the title of a report submitted by U. S. Trade Commissioner Julian B. Foster, Singapore, and available to American inquirers as Special Circular No. 387, from the Chemical Division, U. S. Dept. of Commerce, Washington, D. C.

Insecticide Plant

A dessert plant growing wild in Central Asia has proved to be a rich source of an active alkaloid, pachicarpin, which may be used as a contact insecticide, according to recent investigations by a research group. The plant may be readily procured in large amounts. One acre produces some 0.4 ton of green mass. *Ind. Eng. Chem. News Ed.*, Jan. 10, 1936.

Derris for Chicken Lice

Lice on badly infected chickens were completely killed in 18 hours by dusting the birds, by the pinch method, with small amounts of powdered derris containing 1 per cent of rotenone. In experiments on the toxicity of rotenone and derris to chickens, no visible effects were obtained by the oral administration of either 0.2 gram of derris dust or 0.02 gram of pure rotenone fed twice in 12 hours. A single dose of 0.1 gram of rotenone had no effect. The egg-laying ability of hens was not affected by the ingestion of rotenone. Roland M. Whittaker and Arthur L. Whittaker. *Poultry Sci.* **14,** 351-4 (1935).

Airplane Mosquito Spray

A pyrethrum spray for use against mosquitoes in airplanes should be noninflammable. Such a spray contains a mixture of 1 part of pyrethrum extract in kerosene (containing 2 per cent of pyrethrins) and 4 parts of carbon tetrachloride (containing no pyrethrins). This spray killed 100 per cent of the mosquitoes with 5 minutes exposure. By ordinary tests the mixture is noninflammable. Kerosene extract containing 0.4 per cent of pyrethrins is about as effective against mosquitoes as one containing 2 per cent. C. L. Williams and W. C. Dreessen. *U. S. Pub. Health Repts* **50,** 1401-4 (1935).

Crown Enters Can Field

Crown Cork & Seal Co., Baltimore, has just taken over the business of the Acme Can Co., Philadelphia, as the latest development in a series of shifts in the tin can manufacturing field. For the present Acme Can Co. will be operated as a wholly owned subsidiary, with L. Frederick Gieg continuing as president under the new management. A general line of plain and lithographed cans, boxes and other metal containers will be offered.

Bulgarian Pyrethrum

In an attempt to encourage Bulgarian production of pyrethrum it is reported that the Government of Bulgaria will guarantee minimum prices on the 1936 pyrethrum crop. The market for Bulgarian rose oil has been declining over recent years and the state agricultural department is attempting to find a replacement crop. Production of pyrethrum in the 1935 season totaled 43,000 kilos. The flowers were reported generally high in pyrethrin content, with analyses on one district's production showing a pyrethrin content of 2.1 per cent.

I. & D. Committee Changes

W. B. Eddy of Rochester Germicide Co., Rochester, president of the National Association of Insecticide and Disinfectant Manufacturers, has recently announced the following changes in committees:

Legislative Committee

H. W. Hamilton replaces Dr. Robert C. White, who resigned from this committee because of the responsibility connected with his new office in the City of Philadelphia.

Insecticide Committee General

The following are added to this committee: H. R. King of R. J. Prentiss & Co., New York; M. L. Harrisson of H. D. Hudson Mfg. Co., Chicago.

Insecticide Specifications and Standardization

Wallace Thomas, chairman, Gulf Refining Co., Pittsburgh, replacing Dr. Robert C. White, resigned. Additional members appointed are: W. G. Griesemer, Black Flag Company, Baltimore; J. N. Curlett, McCormick & Co., Baltimore; D. F. Murphy, Rohm & Haas, Philadelphia; Dr. Alfred Weed, John Powell & Co., New York.

Insecticide Testing Committee

Add the following members: Wallace Thomas, Gulf Refining Co., Pittsburgh; Dr. F. L. Campbell, U. S. Dept. Agriculture, Washington, D. C.; N. J. Gothard, Sinclair Refining Co., East Chicago, Ind.; D. F. Murphy, Rohm & Haas, Philadelphia.

Special Publicity Committee

John N. Curlett of McCormick & Co., Baltimore, replaces C. P. McCormick of the same company, who resigned from the committee. Harry Cole of Baird & McGuire, Holbrook, Mass., replaces Peter Dougan, resigned.

THE BEST SOURCE OF SUPPLY

KOPPERS

DEPENDABLE · UNIFORM

plus

CONSULTATION SERVICE FOR YOUR CHEMISTS

MANY of the processes employed in the refining of coal tar products have been developed by the Koppers companies. A competent technical staff is constantly at work to introduce further process refinements and to insure the high quality of all Koppers products. The Koppers laboratories are abreast of all new developments in the field of coal tar products. Their services are at your command.

TAR ACIDS

CRESOL, U. S. P.

PHENOLS

CRESYLIC ACID

98% to 100% STRAW COLOR

TAR ACID OILS

NEUTRAL HYDROCARBON OIL

(For construction aud maintenance, Koppers also produces: Roofing, Waterproofing, Dampproofing, Creosote, Tar Base Paints and Coatings, and Tarmac for driveways, roads, pavements, etc.)

KOPPERS PRODUCTS COMPANY

KOPPERS BUILDING, PITTSBURGH, PA.

Offices:

New York, Boston, Providence, Chicago, Birmingham, San Francisco

Plants: Birmingham, Ala.; Buffalo, N. Y.; Chicago, Ill.; Follansbee, W. Va.; Fort Wayne, Ind.; Hamilton, O.; Kearny, N. J.; Milwaukee, Wis.; New Haven, Conn.; Providence, R. I.; St. Paul, Minn.; St. Louis, Mo.; Swedeland, Pa.; Utica, N. Y.; Youngstown, O.

BREUER'S TORNADO ELECTRIC SPRAYERS

gets you reorders because they are the most efficient and durable insecticide sprayers ever built. Supply your customers with the best.

The New Tornado Model 36

Automatic Time Switch—Volume Air Control

One Gallon Capacity, 1-3 H.P. G. E. Universal Motor

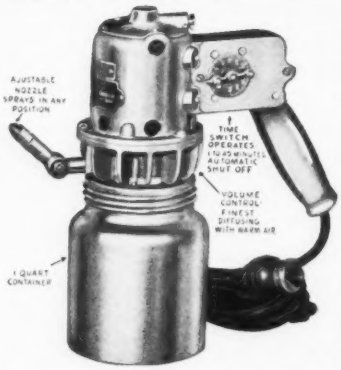
⅓ H.P. G.E. MOTOR
TIME SWITCH OPERATES 1 TO 45 MINUTES AUTOMATIC SHUT OFF
ADJUSTABLE NOZZLE SPRAYS IN ANY POSITION
VOLUME CONTROL FINEST DIFFUSING WITH WARM AIR
COMPRESSOR TYPE
1 GALLON CONTAINER

Here is the finest sprayer ever built. Similar to the now widely used Tornado Model 54 and retaining the automatic time switch, volume air control and adjustable nozzle features, the new Model 36 will spray a big volume of insecticide great distances in finest gas formation.

The patented principle of heating and compressing material does the trick. Just the sprayer you need for covering large distances and penetrating with the finest gas every possible source of insect existence.

Get the facts on this sprayer before buying!

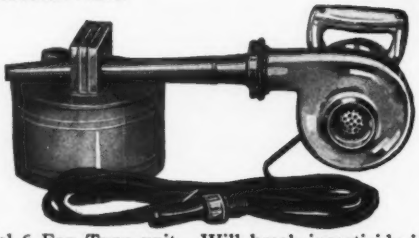
Also most complete line of electric sprayers to meet every spraying problem.


ADJUSTABLE NOZZLE SPRAYS IN ANY POSITION
TIME SWITCH OPERATES 1 TO 45 MINUTES AUTOMATIC SHUT OFF
VOLUME CONTROL FINEST DIFFUSING WITH WARM AIR
1 QUART CONTAINER

MODEL 54—1 QT. CAPACITY

It features an automatic time switch set at any point from 1 to 30 minutes — sprays desired amount without any attention whatever — automatically shuts off. Can also be used for hand spraying. Adjustable nozzle can be set for spraying in any position. Also exclusive volume control adjustment permits spraying one ounce every two to four minutes with either fine or heavy spray. MODEL 53 same as Model 54 except does not have automatic time switch.

Model 50 Fan Type unit. A fine insecticide atomizer. Sprays distance of 8′ to 10′. ⅛ H.P. G.E. Universal Motor, 1 pint glass jar. 20′ of rubber covered cable.



Model 6 Fan Type unit. Will break insecticide into a very fine mist. Sprays 18′ to 20′. 1/3 H.P. G.E. Universal Motor. Norma Ball Bearings, 1 gallon metal container. This model is for larger institutions, warehouses, industrials, etc., and is also highly recommended for moth-proofing solutions. Write today for complete description and circulars.

BREUER ELECTRIC MFG. CO.

862 Blackhawk Street Chicago, Ill.

We do not sell insecticides. Our business is manufacturing sprayers.

Patented in U. S. A. and Foreign Countries

V. P. Adams Completes a Year

V. P. Adams, Inc., Jamaica, Long Island, manufacturers and distributors of sanitary specialties, com-

pleted its first year in business on February 15 last. The company has shown a rapid growth during the year, catering to the sanitary products demand of the Long Island territory. The present staff consists of six salesmen and four maintenance and installation men, headed by Vincent P. Adams, president of the firm. Prior to establishing his own firm, Mr. Adams was for ten years in charge of Brooklyn sales for the West Disinfecting Co. The factory and offices of the company are located at 148-15 Archer Ave., Jamaica, N. Y.

Race Track for Roaches

A six-lane race track designed and used for racing large cockroaches is a novel device in the possession of Ward Baldwin, president of the Baldwin Laboratories, Saegertown, Penn. This "track" is about five feet long and covered with glass. It has six lanes and starting "coops" much after the style of the starting boxes used in dog racing. When the "barrier" is raised the roaches travel at full speed down the track to reach an opening at the far end which permits them to reach the privacy of another dark chamber. Healthy roaches will travel as rapidly as possible to the far end. Sickly insects will stop and show signs of their weakness. The track is used for the selection of large roaches of good vitality for insecticide testing. It is reported that now and then in the selection of "healthy" roaches, the boys who have a weakness in the direction of the "ponies," are known to place a small bet or two on the roaches. The device will be on display at the summer meeting of the insecticide and disinfectant industries in Chicago next June.

Sennewald Rat Derby

Anticipating the Kentucky Derby, scheduled for later this spring, the Sennewald Drug Co., St. Louis, recently held the first running of the Sennco-Limburger Rat Derby. Entries included mice of all ages and the course lay along a pool table. The stirring running of the event is described in a recent number of the *Senco News*:

"Beyond the finish line lay a fresh hunk of limburger, its aroma tantalizing the half dozen entries into high nervous tension. In lieu of a barrier, six assistants held the rodents firmly by their tails.

The starter barked:

Go!

The gate chorused:

They're off!

"The chorus stampeded the racers. They galloped in all directions, but soon pulled themselves together and drove hard toward the cheese. Allen's Pride, the favorite, got away fast at the post and was never headed until he dashed headlong into the cheese with such a burst of speed that he had to be forcibly extracted. Two in the field ran off the course, apparently bewildered by the bright lights; one was injured and had to be destroyed."

State Service Moves

State Service Co., Little Rock, Ark., is now located at 1305 McGowan St., the former address being 313 West Markham St.

Park Chemical Appoints

Park Chemical Co., Detroit, automotive and household polishes, has appointed Simons-Michelson Company, that city, to direct its advertising account.

R. C. Kelly Opens Boston Office

Robert C. Kelly, for the past six years vice-president of John Powell & Co., New York, is opening

a Boston office as of March 1 to act as sales representative for that company and Aromatic Products, Inc., New York manufacturers of perfuming materials. The territory of the new office in charge of Mr. Kelly will cover New England, Northern New York State, and Eastern Canada. He will handle the sale of pyrethrum products and powdered soap specialties for Powell, and a complete line of perfuming and flavoring materials for Aromatic Products. Announcement of the location of the Boston office has not been made as yet by Mr. Kelly.

Termites at St. Helena

A termite infestation at Longwood, St. Helena, the house where Napoleon lived during his exile there, has recently been cleared up by M. Decamps, French termite expert. During Napoleon's stay there rats were one of his greatest problems.

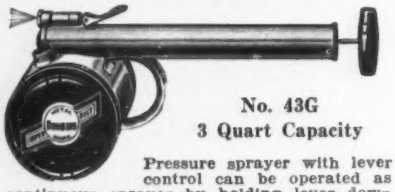
New Fumigation Ordinance

The city council of Springfield, Mass., recently approved and adopted new laws governing the conduct of fumigation work in that city.

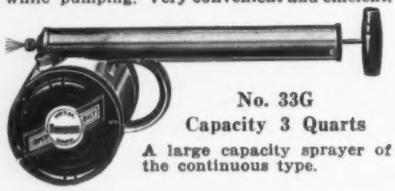
Elkay Issues Price List

Elkay Products Corp., New York, has just issued a new price list covering disinfectants, insecticides, polishes, deodorants, moth products, mouse seeds, rat poison, etc.

High Pressure—Controlled Atomization
No. 35—3 qt. capacity.
No. 30—1½ gal. capacity.
The discharge has a wide range of adjustments, from a forceful, penetrating spray, to fine floating fog, with in-between variations.



No. 43G
3 Quart Capacity
Pressure sprayer with lever control can be operated as continuous sprayer by holding lever down while pumping. Very convenient and efficient.



No. 33G
Capacity 3 Quarts
A large capacity sprayer of the continuous type.

Dobbins Superbilt Sprayers

Superbilt For Service

Sprayers designed for greater utility in the application of insecticides and sanitary products.

Forceful and Penetrating Atomization

A Better Sprayer Makes Your Good Products Better

Write for Descriptive Circular

No. 10
Floor Oil Sprayer
With Air Regulator and Volume Control
1½ Gal. Capacity

DOBBINS MANUFACTURING CO.
NORTH ST. PAUL, MINN.

BETTER RESULTS ARE OBTAINED IN FLY SPRAYS WHEN

NONODR

IS USED AS A BASE BECAUSE NO NOXIOUS ODOR CALLS A HALT TO SPRAYING OPERATIONS FOR SUFFICIENT APPLICATIONS.

MADE RIGHT *PRICED RIGHT*

O'CONNOR & KREMP
11 WEST 42nd STREET NEW YORK, N. Y.

Sole Agents

Refined by
BRADFORD PENN REFINING CORP.
Clarendon, Penna.

N. J. Exterminator Bill

A bill to license exterminators and fumigators has been introduced in the New Jersey Assembly (No. 116) which would set up a control of exterminators and fumigators similar to that in effect in New York. Written and oral tests would be given to applicants by a fumigant board before licenses were issued. The bill also provides that fluorides used must be colored nile blue and specifies that any poisonous products must carry on their containers the name and address of the manufacturer, a danger signal and instructions as to antidote.

Small Pox Fumigation

Maywood Pest Exterminators, Maywood, Ill., advise that during the recent small pox epidemic in Chicago they were successful in developing a fumigation method whereby clothing could safely be removed from quarantined buildings. Clothing taken from infected premises was put in a special heated vat and thorough penetration of the germicide used in the process was assured by circulation of moist air. As a result of use of this method of treatment, which the Board of Health gave its approval to, much inconvenience was avoided by residents of the quarantined buildings.

National Advances Beirne

National Can Company announces the appointment of Thomas J. Beirne as assistant local sales manager for the central district, operating from Chicago headquarters at 135 S. LaSalle Street. Mr. Beirne has been with the company for the past thirteen years.

Yugoslav Pyrethrum

Production of pyrethrum flowers in Yugoslavia during 1935 totaled only about 700 metric tons as compared with a forecast of 800 tons. Quality is considerably better than for the 1934 crop, however. The analysis of pyrethrum grown in the province of Primerska shows an average of 0.90 per cent pyrethrin, while that produced in the Province of Zeta averages 0.80 per cent pyrethrin.

POLISHES!

The latest information on polishes,—the result of recent research,—will be published in the form of a series of three articles by Ralph H. Auch, chief chemist of the American Products Company, — beginning with an article on Furniture Polishes in the April issue of SOAP. Auto, metal and other polishes will be discussed in two subsequent articles.

Moore & Co., Worcester, Mass., makers of "Moore's" germicide, are now marketing this product in a new container equipped with an atomizer.

New German Fumigant

A German firm, Dr. Freyberg of Delitzsch near Leipzig, claims to have developed a special gas, easily handled, that will completely exterminate rodents, insects and weevils. The product is called "Delicia Kornkaeferbegasung". It is packed in cloth sacks and then in an airtight container. The sacks are removed from the container and buried in the grain in rows about 30 centimeters apart. The action of air upon the chemical content of the bag liberates gas which spreads evenly in all directions. The grain is covered with paper, or something equally impenetrable by the gas, and this keeps the poison fumes circulating in the grain. After 6 or 8 days, the covering is removed and the grain ventilated with an airblower to completely remove the fumes.

Derris Extracts

Concentrated derris root and other extracts emulsifiable with water are obtained by adding weakly acid alkali-resin soaps to derris root and other extracts obtained by means of and containing di- or tri-chloroethylene. Chem. Fabrik Marienfelde G. m. b. H. British Patent No. 432,626.

Franklin Research Buys

Franklin Research Company, Philadelphia, floor products, has purchased from the Innis Spieden Company of New York, the going business of the Wilbur White Chemical Company of Owego, New York. The Wilbur White Chemical Company was a 100 per cent owned subsidiary of the Innis Spieden Company and has for the past nine years done extensive research work in the field of water emulsion waxes, developing and perfecting wax films as used for floors,—factory finish coatings and other industrial requirements pertaining primarily to the rubber, leather, nursery, and paper industry. Franklin Research will continue to operate the Wilbur White Chemical Company as a division of Franklin Research Company and they have retained W. A. Bridgeman, formerly president of the Wilbur White Chemical Company as managing head of an industrial department which will pursue the further development and sale of special water emulsion formulas for specific industrial uses.

History of Entomology

A new book on the history of entomology "The Pioneer Century of American Entomology" will be issued about March 15 by Harry B. Weiss, New Brunswick, N. J. The book traces the development of the science of entomology in America from 1600 to 1865. Only 150 copies will be issued, bound in cloth and priced at $4.25.

Continental Buys Can Unit

Continental Can Company has acquired the can-making facilities of Armour & Co. at the Union stock yards, Chicago, and also has contracted to supply the packing firm with its can needs, it was announced recently by the Continental Company. The amount involved in the transaction was not disclosed.

George W. Rockwell Exterminating Co., formerly located at 2110 E. 15th St., Kansas City, Mo., is now at 1234 Oak St., Kansas City.

Other Washburn Floor Products:

PENETRATING SEAL BASE
TREAD PROOF SEALER
LIGHT MOPPING VARNISH
HEAVY MOPPING VARNISH
ALL AMERICAN GYM FINISH
BURNLESS GYM FINISH
MAGIC LUSTRE WATER WAX
CRYSTAL SEAL
(for concrete and terrazzo floors)

All of these Washburn products are described in our new 52 page publication "Modern Floor Maintenance." Gives complete instructions for the care of all types of floors. Write for a copy.

Increased Profits!

Satisfied Customers!

Jobbers are finding that Washburn's

PENETRATING SEAL

will give their customers correct modern floor maintenance.

Penetrating Seal not only satisfies the school or institution where wax can be used for maintenance but also opens a new field for you in private or public buildings where wax cannot be used.

Penetrating Seal is the only sealer that operates satisfactorily with or without the wax finish. It is alkali-proof, water proof, and non-slippery; penetrates deeply, dries in one hour, and leaves no surface film.

T. F. WASHBURN CO.
2244 ELSTON AVE. CHICAGO

MOTH-PROOFING

PLUS

Will the "mothproofed" articles you offer also resist damage by carpet beetles?

If they're FLORIZED, they will—"live larvae" tests prove it.

FLORI makes it possible for you to give complete protection for 5 years—backed by insurance.

Write for literature.

flori
Mothproofing Method, Inc.
254 So. Broad St.
Philadelphia

Kearns WHITE TAR MOTH PREVENTION PRODUCTS

DISINFECTANTS

COAL TAR DISINFECTANTS—Coefficients 2 to 20 plus F.D.A. Method

•

PINE OIL DISINFECTANTS

•

CRESOL AND CRESYLIC ACID DISINFECTANTS

•

PINE OIL DEODORANTS

•

CRYSTAL AND BLOCK DEODORANTS

•

LIQUID INSECTICIDES

THE WHITE TAR COMPANY OF NEW JERSEY, INC.

PHONE KEARNY 2-3600
BELLEVILLE PIKE, KEARNY, N. J.

INSECTICIDE DISINFECTANT MANUFACTURERS

Chicago Sanitary Sales Up

Affiliated Sanitary Supply Distributors of Chicago at their meeting February 11th heard George Nicholas of Tarpon Springs, Florida, talk on sponges and sponge fishing. January, 1936, sales by member companies showed an average gain of 26 per cent over January, 1935. The average net profits of the members for 1935 amounted to a 13 per cent gain over 1934. The members of the association have recently cooperated in the purchase of a car of paper goods. Since many of the members buy in smaller quantities, this latest action will mean considerable saving for them. Whether this will become a permanent policy has not as yet been decided.

Machinery Liquidation

Consolidated Products Co., New York, used machinery house, has announced in a 32-page booklet its immediate liquidation of the Yonkers plant of the Spreckels Sugar Corp. The machinery had an original cost of $10,000,000, it is stated, and includes nearly every type of chemical processing equipment, including filter presses, evaporators, conveyors, dryers, crushers, mixers, scales, packaging machinery, pumps, power plant equipment, etc. Copies of the booklet may be obtained through the publishers of SOAP.

Record Can Earnings

Continental Can Company, New York, reports record earnings of $11,223,578 during 1935 in its official statement just issued. This is equivalent to $4.21 a share and compares with $10,707,122, or $4.02 a share, last year. Its dollar volume of can sales was 19.4 per cent greater in 1935 than in 1934 according to O. C. Huffman, president.

Dr. West Advertising Plans

Sales and advertising plans, revealing a projected increase of 31 per cent this year in advertising of Dr. West's tooth paste and tooth brushes, were presented last month by the Weco Products Company at a company convention in New York. Prominent in the plans is a radio program, which began February 22, over a coast-to-coast network of forty-two stations, featuring George Olsen and his orchestra.

Memphis Exterminator Moves

Gluck & Deal, exterminators, formerly at 829 Jefferson St., Memphis, have taken new quarters recently at 166 Monroe Ave.

Exterminating Service Moves

Exterminating Service Co., formerly at 2534 Fifth Ave., Pittsburgh, is now located in Building 36, Arsenal Terminal, Pittsburgh.

Bobrick's Dog Soap

Bobrick Manufacturing Corp., Los Angeles, is introducing a new dog soap to be used in ridding dogs of fleas. It will be sold under the name, "Bobrick's Pine Dog Soap."

Can Co. Official Dies

F. A. Assmann, president of American Can Co. for a time after its organization in 1901, and one of the principals in the formation of Continental Can Co. whose board he headed from 1913 to 1922, died at his home in East Orange, N. J., February 19, following a long illness. Mr. Assmann was 83 years old and had been in retirement since 1922.

New Model at Lien Home

C. B. Lien of Lien Chemical Co., Chicago, sanitation engineers, reports in a unique announcement the birth of a son to Mrs. Lien, February 20th. He announces the 1936 Lien "Baby Boy" (Model No. 3)—C. B. Lien, designer and chief engineer, and Mrs. C. B. Lien, production manager. He describes the new addition to the Lien line as "Two lung power—free squealing—double baul bearing—economical feeding—water cooled exhaust — changeable seat cover." The Lien management assures the public that there will be no new models during the balance of the year.

Los Angeles Firm Moves

Tar Best Mfg. Co., Los Angeles, soap manufacturer, has moved recently to new quarters at 612 Oviatt Building.

George H. Fick Moves

The firm of George H. Fick, Inc., detergents, formerly at 39 Wythe Ave., Brooklyn, has recently taken new quarters at 288 Green St.

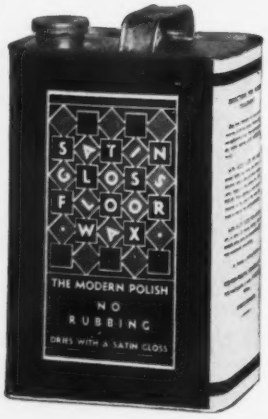
Geiger Moves in Cincinnati

Geiger Co., 519 Main St., Cincinnati, exterminator, has moved recently to 3510 West 8th St.

New type sprayer recently adopted by the Baldwin Laboratories, Inc., Saegertown, Penna., for use with their Dwin liquid insecticide. The sprayer is a stream-line design, the barrel being attached to the container at an angle which permits setting it down flat when not in use, and also spraying at sharp upward angles without spilling or flooding.

Uncle Sam Says:

SATIN GLOSS FLOOR WAX IS SUPERIOR TO OTHER WAXES



BEST BY TEST

IT GIVES A BRILLIANT DURABLE SURFACE PROTECTION.

Is recommended for all types of flooring.

Linoleum	Asphalt Base	Varnished
Inlaid	Terrazzo	Painted
Cork	Rubber	Shellacked

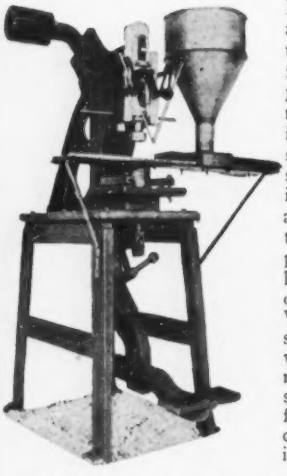
WRITE FOR SAMPLE AND PRICES

THIS PRODUCT CAN BE SUPPLIED
In bulk or put up under your own brand.

Metal Polish
Non-Rubbing Wax
Deodorizing Blocks
Urinal Cakes
Fly Sprays
Moth Preventives
Furniture Polish
Prepared Wax Polish
(Liquid and Paste)

UNCLE SAM CHEMICAL CO., INC.
Manufacturers for the Jobber
329 EAST 29th STREET, NEW YORK, N. Y.
Established 1915

Machine-Made DEODORANT CAKES and BLOCKS *are big sellers!*



Make your deodorant and moth cakes with this heavy pressure foot press by the cold process and save money while you are increasing sales. A smooth, even cake will sell better because of its improved appearance and will cost less to make because this press not only cuts labor but saves 5% of your raw material. Why not let us make some sample cakes with your own para, naphthalene, etc., and submit complete information regarding cost and manufacturing process?

HOUCHIN MACHINERY CO., INC.
HAWTHORNE, N. J.

SPECIALTY SOAP PRODUCTS

Liquid Soap Base
Potash Oil Soap
Liquid Soap
U. S. P. Green Soap
Auto Soaps
Shampoo
Pine Oil Soap
Shampoo Base
U. S. P. Cresol Compound
Coal Tar Disinfectants
Pine Oil Disinfectants
Insecticides
Liquid Floor Wax

We manufacture for the trade only

HARLEY SOAP CO.,
2852 E. Pacific St.,
Philadelphia, Pa.

Ask for samples of above specialty bulk products.

Gone.....

.... is the "Jack-of-all-Trades"—

... to be replaced by the fellow who does one job and does it well, ... and more important, knows what he is doing.

And going fast in the field of trade paper publishing is the "Jack-of-all-Trades" publication which "covers the world" ... which reaches the butcher, the baker, and candlestick maker, or anybody else a prospective advertiser might want to reach ... that is as long as the imagination of the advertising solicitor holds out.

Common sense tells us that no one trade publication can cover the whole field of chemicals, drugs, cosmetics, soaps, insecticides, disinfectants, perfumes, cigars, cigarettes, and chewing gum ... and know what it is doing ... or be able to include even a small degree of authoritative editorial intelligence ... no matter what kind of claims (always without proof) are made by advertising solicitors.

SOAP does not "cover the world." It offers to advertisers an honest and genuine circulation in the field of soaps, insecticides, and allied sanitary specialties, ... a circulation backed by membership in the A.B.C. (Audit Bureau of Circulations).

MAC NAIR - DORLAND COMPANY, INC.
Publishers

254 WEST 31st STREET **NEW YORK CITY**

SOAP PLANT FOR SALE!

This entire plant, including factory equipment and real estate, which until recently was the home of the Holman Soap Company, Chicago, has just been purchased by Newman Tallow and Soap Machinery Company and is offered for immediate sale. The plant is fully equipped to manufacture economically any kind of soap (laundry, toilet, chips, powders, etc.) and is ready for operation as a going concern. Centrally located, with ample manufacturing and storage facilities and completely equipped with modern soap machinery in first class condition, this plant is an unusually fine "buy" for anyone interested in the manufacture of soap.

Included in the equipment is a Pack-O-Matic Soap Chip Filler and a Proctor & Schwartz Single Roll Dryer—both in unusually good condition. Also a Package Machinery Company High Speed Bar Soap Wrapper which is as good as new. All other equipment, crutchers, frames, etc., are in uniformly high-grade condition. Write us for more detailed information regarding the plant.

USED SPECIALS IN STOCK

For the Soap, Chemical, Cosmetic and Allied Trades

H-A, 1500, 3000, 4000, 5000 lbs. capacity. Steam Jacketed Crutchers.

Dopp Steam Jacketed Crutchers, 1000, 1200, 1500 lbs. and 800 gals. capacity.

Jones Automatic Soap Presses.

Ralston Automatic Soap Presses.

Scouring Soap Presses.

Empire State, Dopp & Crosby Foot Presses.

2, 3, 4, 5 and 6 roll Granite Toilet Soap Mills.

H-A 4 and 5 roll Steel Mills.

H-A Automatic and Hand-Power slabbers.

Proctor & Schwartz Bar Soap Dryers.

Blanchard No. 10-A and No. 14 Soap Powder Mills.

J. H. Day Jaw Soap Crusher.

H-A 6, 8 and 10 inch Single Screw Plodders.

Allbright-Nell 10 inch Plodders.

Filling and Weighing Machines for Flakes, Powders, etc.

Steel Soap frames, all sizes.

Steam Jacketed Soap Remelters.

Automatic Soap Wrapping Machines.

Glycerin Evaporators, Pumps

Sperry Cast Iron Square Filter Presses, 10, 12, 18, 24, 30 and 36 inch.

Perrin 18 inch Filter Press with Jacketed Plates.

Gedge-Gray Mixers, 25 to 6000 lbs. capacity, with and without Sifter Tops.

Day Grinding and Sifting Machinery.

Schultz-O'Neill Mills.

Day Pony Mixers.

Gardiner Sifter and Mixer.

Proctor & Schwartz large roll Soap Chip Dryers complete.

Doll Steam Jacketed Soap Crutchers, 1000, 1200 and 1350 lbs. capacity.

Day Talcum Powder Mixers.

All types and sizes—Tanks and Kettles.

Ralston and H.A. Automatic Cutting Tables.

Soap Dies for Foot and Automatic Presses.

Broughton Soap Powder Mixers.

Williams Crusher and Pulverizer.

National Filling and Weighing Machines

Send us a list of your surplus equipment. We buy separate units or complete plants.

NEWMAN TALLOW & SOAP MACHINERY CO.

1051 WEST 35th STREET CHICAGO, ILLINOIS

Our forty years soap experience can help solve your problems

CLASSIFIED ADVERTISING

Classified Advertising—All classified advertisements will be charged for at the rate of ten cents per word, $2.00 minimum, except those of individuals seeking employment where the rate is five cents per word, $1.00 minimum. Address all replies to Classified Advertisements with Box Number, care of *Soap*, 254 West 31st St., New York.

Positions Wanted

Soapmaker with 38 years of experience in Europe and America. Can make the following soaps: All kinds of settled soaps, down-boiled, semi-boiled, cold process soap, textile oil soaps, liquid and soap base and many other soaps from the kettle to the frame in the most economical way. Address Box No. 716, care *Soap*.

Soapmaker and Superintendent—Have had long experience in making all kinds of soap. Analyze any soap or soap material. Address Box No. 705, care *Soap*.

Soapmaker and Chemist—whose past record and experience qualify him for meeting highest technical requirements, desires steady employment with progressive concern. Address Box No. 720, care *Soap*.

Expert Soap Chemist and Engineer, Massachusetts Institute of Technology graduate desires position as superintendent, assistant superintendent, chief chemist or research chemist. Thirteen years production, analysis and research in laundry, textile, toilet and liquid soaps, rendering, oil refining, glycerin recovery. Address Box No. 721, care *Soap*.

German Soap Chemist—30 years' experience all kinds of household soaps—soft (oil) soaps, soap powder, glycerin treating; all kinds toilet soaps—shaving soap, shaving soap powder, esp. liquid soaps for all purposes (not hydrolyzing); soap for dyeing, esp. for silks and textiles; seeks responsible position. Address Box No. 714, care *Soap*.

Soapmaker and Chemist—with long experience making all kinds of soaps, seeks permanent connection. Address Box No. 722, care *Soap*.

Soap Plant Superintendent—Man with fourteen years experience with two leading soap manufacturers, experienced in all types of standard soaps, but specializing in toilet soaps, desires new connection with progressive firm. Can assume complete charge plant. Good record. Address Box 709 care *Soap*.

REBUILT SOAP MACHINERY

SPECIALS

Machinery from former plants of National Soap Powder Co., A. W. Barnes Soap Co., and Pennsylvania Soap Co.

1—Allbright-Nell 4'x8' Cooling Roll, with top feeder roll, scraping knife.
4—5000 lb., 1500 lb., 1000 lb., Jacketed Vertical Crutchers.
2—1500 lb. Horizontal Crutchers.
1—Steel Soap Kettle, 5' dia. x 10' high.
1—Houchin 400 lb. Amalgamator.
4—Houchin Soap Plodders, 8" and 10".
2—Rucchmann 4-roll inclined Granite Mills, 18"x24", motor driven.
1—Broughton 1200 lb. Soap Powder Mixer.
2—Tabor Soap Pumps.
4—Houchin 4 and 6-knife Chippers, 20".
1—Houchin Soap Foot Press.
1—Houchin 1500 lb. Power Slabber.
1—Houchin Hand Slabber.
2—Houchin 2-way Soap Cutting Tables.
1—Jones "A" Automatic Soap Press.

1—Proctor and Schwartz Soap Chip Dryer, steel frame, 7-section, 1—cooling section, complete with 5-roll P. & S. Mill. Located on Pacific Coast.

MISCELLANEOUS—Soap Frames, Kettles, Mixers, Pony Mixers, Powder Fillers, Labelers, Wrappers, Tanks, Pumps, Boilers, etc.

Send for Latest Bulletin.

CONSOLIDATED PRODUCTS CO., INC.
15-21 Park Row New York, N. Y.
BArclay 7-0600
We buy your idle Machinery—Send us a list.

REBUILT SOAP MACHINERY

PRICED FOR QUICK SALE

1—Proctor Soap Chip Dryer
1—Jones automatic vertical Soap Press
4—3, 4 and 5 roll Steel Mills
2—10" Houchin-Aiken Plodders
1—Automatic Power Cutting Table
1—Broughton Mixer, jacketed
2—No. 10A Blanchard Mills
3—Soap Foot Presses
6—Filter Presses, sizes 12" to 30"
1—Granite Stone Mill, 2 roll
30—1200 lb. Soap Frames
2—Jacketed Vertical Crutchers
2—1500 lb. Horizontal Crutchers
2—Hand Power Slabbers
2—Hand Power Cutting Tables
2—Houchin Chippers

600 and 1,200 lb. Frames, Kettles, Pumps, Tanks, Filter Presses, Wrapping Machines, Tube Fillers, Closers, Crimpers, Dry Powder Mixers, Pulverizers, Grinders, Evaporators, Amalgamators, Mixers, etc.

Send for Complete List (Bulletin No. 16)

WE BUY AND SELL FROM SINGLE ITEMS TO COMPLETE PLANTS.

STEIN-BRILL CORPORATION

183 VARICK STREET NEW YORK, N. Y.
Phone: WAlker 5-6892-3-4
Cable Address: "BRISTEN"

F. & S.

Quality Colors *for* TOILET SOAPS LIQUID SOAPS

TOILET PREPARATIONS

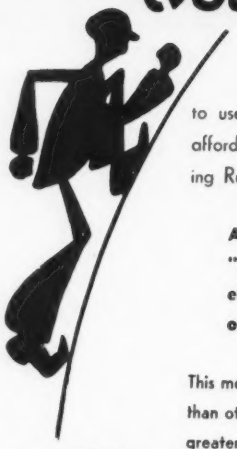
Long experience enables us to produce colors for all types of soaps.

If you have a shade you want matched send us a sample. We have complete facilities for matching.

Liquid soap colors a specialty—send for samples of F. & S. greens and ambers.

FEZANDIE & SPERRLE, Inc.
205 FULTON STREET
NEW YORK, N Y.
Import—Manufacture—Export

Not Slippery—



So important is it to use the safest floor finish that you cannot afford to overlook the surprising facts regarding Rubber Gloss Wax.

A famous testing laboratory says: ". . . Rubber Gloss has a higher coefficient of friction than any other of the prepared (floor) dressings . . ."

This means that Rubber Gloss Wax is less slippery than other floor finishes. Play safe—use it for the greater degree of protection it gives, not only from falls, but from suits arising out of falls.

NOTE—A printed copy of the above Laboratory Tests will be sent free of charge upon request.

FRANKLIN RESEARCH COMPANY
5134 Lancaster Avenue
PHILADELPHIA, PA.

Distributors in principal cities

PALMER SOAP DISPENSERS

The Palmer SUPER SERVER Dispenser (right) is priced very low, but has no equal in value. Metal parts are non-corrosive, stainless, chrome alloy. One piece bracket in beautiful satin chrome-like finish. Valve parts easily removed for cleaning or replacement. Crystal glass decagon bowl (opal glass on special order)—decagon black enameled cap. Large 1-inch opening makes filling easy—no need for removing or inverting bowl. The lowest priced push-in dispenser—yet neat, compact, durable.

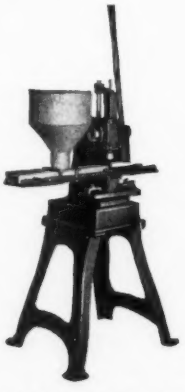
The Palmer "D.C." Dispenser (dependable construction), shown at the left, is the lowest priced dispenser offered. Has simple, positive spring-controlled valve. All metal parts chrome nickel plated. Fill through large 1-inch top opening without removing or inverting bowl. Crystal glass decagon bowl (opal glass on special order)—with decagon black enameled cap.

Write for new catalog on complete Palmer line of soap dispensers, janitor and sanitary supplies, maintenance materials and equipment.

Palmer PRODUCTS INC
WAUKESHA, WIS.
Adjacent to Milwaukee

This Versatile Press

is good for a variety of uses besides making para blocks. Soap, for instance, can be pressed with suitable dies to produce as fine looking cakes as come from the most expensive automatic press. Or, for instance, if you bottle some of your liquid mixtures, the Huber hand lever press can be equipped with little expense to cap the bottles. For purposes such as this it has a considerable advantage over the foot press, as the pressure of each stroke is subject to sensitive hand control.



Anything that requires compression, within the limitations of manual power, can be handled in these presses. Truly they are "all-purpose" machines, invaluable to the plant with diversified output and multiplied production problems.

Available in style illustrated or in bench type.

HUBER MACHINE CO.
265 46th St., Brooklyn, N. Y.

Soapmaker and Chemist, reliable, received training abroad. Able to make any kind of soap. Own analysis; looking for new and steady position. Address Box No. 719, care *Soap.*

Position Wanted by capable man, 37, married, well-educated, personable. Prefer sales work for manufacturer or broker. Have handled sales promotion, advertising, purchasing, credits. Will locate any place. Address Box No. 696, care *Soap.*

Insecticide Sales—Man with 18 years sales and promotion experience with three manufacturers of nationally advertised household insecticides desires new connection as sales manager or in promotion work. Knows the markets and merchandising of small package and bulk insecticides. College man. Best of references. Address Box No. 693 care *Soap.*

Positions Open

A Prominent Manufacturer of liquid soaps, disinfectants, deodorizing cakes, etc., has an opening for a dependable sales representative. Address Box No. 717, care *Soap.*

Salesman—Wanted by prominent manufacturer of aromatic chemicals and perfuming materials with some experience in selling manufacturers of soaps, insecticides, cosmetics, shampoos, etc. Young man between 25 and 30 preferred. Give full details in letter. Box No. 692, care *Soap.*

Miscellaneous

Floor Brushes — We manufacture a very complete line. Catalogue sent upon request. Flour City Brush Company, Minneapolis, Minn., or Pacific Coast Brush Co., Los Angeles, Calif.

Wanted—Stokes "R" or Cotton "T" Single Punch Tablet Machine. B. Freedman, 147 N. 3rd St., Philadelphia, Pa.

Distributors—We are manufacturers of metal, silver, stove, furniture polishes and no-rub wax. Also complete line of Bar Room cleaning materials. These can be supplied in bulk or packaged under our or your own label which we supply. The Slick-Shine Co., Inc., Newark, N. J.

We are in market for machines suitable to make floor sweeping compound. One for sifting purposes and one for mixing, also one to grind sawdust. Address replies to: Jenco Products, Inc., care *Soap.*

A Complete Line for the Manufacturer of Soaps and Disinfectants

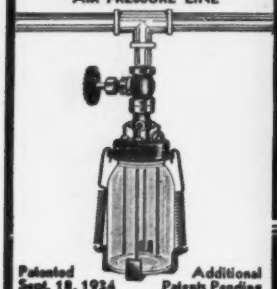
Our broad purchasing and selling experience over a long period of years has established us as headquarters for the complete line of raw materials used by the manufacturer of soaps and sanitary supplies. We are constantly in touch with world-wide markets for chemical products at all times, and invite you to make use of our facilities in checking market developments.

Arsenic
Paradichlorobenzene
Pyrethrum—all forms
Caustic Soda
Essential Oils
Oil of Myrbane
Naphthalene (Moth Flakes and Balls)
Soda Fluoride
Methyl Salicylate
Carbon Tetrachloride
Carnauba Wax—all grades
Soda Ash

H. H. ROSENTHAL CO., INC.
25 East 26th Street — New York, N. Y.
Tel.: AShland 4-7500 — Cable Address: RODRUG

We manufacture a complete line of high quality waxes for the jobbing trade, including no-rubbing liquid wax, regular type liquid wax, powdered wax, paste wax and also furniture polish. These products can be supplied in bulk, packaged under the Windsor label or with your own label which we supply.

WINDSOR WAX COMPANY
53 PARK PL. New York N.Y.
factory
611 Newark St. Hoboken N.J.
Manufacturers of
WAX PRODUCTS EXCLUSIVELY



FUMERAL PRESSURE SYSTEM

Does a Thorough Job..... INEXPENSIVE — EFFICIENT — ECONOMICAL

● The effectiveness of any good spray solution depends upon the efficiency of your spray equipment. Wet sprays are not efficient. It takes a minimum of 30 lbs. (steam or air pressure) to diffuse spray solutions. THE FUMERAL INSTANT DIFFUSER instantly charges the entire room. No insects, flies, cockroaches, ants, moths or germs have a chance to escape. ● Connects to any steam or air line. Turn on the valve and in 4 minutes the operation is completed. No electricity to fuss with. No moving parts. Nothing to get out of order. FUMERALS stay sold. Simple — Inexpensive — More Efficient and Most Economical. Anyone can install it. Various brands of insecticides, germicides, bactericides, deodorants, disinfectants and perfumes all work well in the FUMERAL INSTANT DIFFUSER.

FUMERAL COMPANY, RACINE, WIS.
Manufacturers of Stationary and Portable Diffusers
Sanitary Consulting Engineers

FUMERAL
REGISTERED TRADE-MARK

T. G. COOPER & CO.
INC.

47 North Second Street
Philadelphia

•

Import and Spot Lots of

Cresylic Acid
Commercial Olive Oil
Olive Oil Foots
Palm Oil
Castor Oil
Rapeseed Oil
Japan Wax
Caustic Potash
Carbonate of Potash
Bicarbonate of Potash

MECHLING'S

PHILADELPHIA
CAMDEN, N. J.
BOSTON, MASS.

EST. 1869

SILICATE OF SODA

MECHLING BROS · CHEMICAL COMPANY

TROJAN

TRIPLE-ACTION

METAL POLISH

Always Means Repeat Orders

Trojan Metal Polish brings you satisfied customers on its sheer merit. Trojan Metal Polish—made by specialists who know their business—is a triple-action polish. It dissolves tarnish, cleans and polishes in one operation without rubbing. Its action is immediate. We are equipped to furnish this polish in many color creations and in all different grades.

Write today for generous sample and prices you can afford.

TROJAN PRODUCTS & MANUFACTURING CO.
3101-7 S. Wabash Avenue
Chicago, Ill.

4 Specialties

from our complete line of

PINE OIL SOAPS

★

GELZINE and GELZINE CONC.
For rolling stock, busses, trucks, railway coaches, etc.

PINE-JEL and PINE-JEL CONC.
For general all around cleaning purposes. Inside and outside.

SPRUCE-JEL and SPRUCE-JEL CONC.
For office buildings. A general floor and wall cleaner.

GER-LAC PINE DETERGENT
A general inexpensive utility cleaner for all inside cleaning.

We have 5 other specialty Pine Oil Products as well as a specification cleaner made to order with or without your own label. None of these products will harm paints, varnishes, lacquers, etc. May we send you complete information?

E. A. GERLACH COMPANY
9th AND FORD STREETS
BRIDGEPORT PENNA.

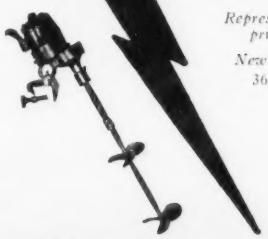
"LIGHTNIN" MIXERS

Let Our Staff of Mixing Specialists Work For You

For years, "Lightnin" Engineers have been solving the mixing problems of soap, insecticide and disinfectant manufacturers. The patented "Lightnin" double mixing action has been the perfect solution to so many mixing problems that it may be just the mixer you have been looking for. Whether your mix is light or heavy, in small quantities or thousand gallon lots, let us help you. We have cut mixing time and reduced costs for thousands of manufacturers. You're next. Let's hear from you.

Representatives in all principal cities

New York Office—368 Broadway



"Lightnin" Geared Drive Heavy Duty Portable Mixers. ¼ to 10 H. P: 100 R.P.M. to 800 R.P.M.

"Lightnin" Direct Drive Portable Mixers. Sizes from 1/6 to 10 H. P: 850 R.P.M. to 3400 R.P.M.

MIXING EQUIPMENT CO.
INCORPORATED
1050 GARSON AVE., ROCHESTER, N. Y.

High cost of Lavender and the Fine Quality of our product has won many fine friends for

Lavender L Parento

at $4 per lb.

Write for your sample to - day

Compagnie Parento, Inc.
CROTON-ON-HUDSON, N. Y.

NEW YORK CITY DETROIT CHICAGO
LOS ANGELES SAN FRANCISCO
SEATTLE PORTLAND, ORE. TORONTO

Where to buy

RAW MATERIALS AND EQUIPMENT

for the Manufacture of Soaps and Sanitary Products

NOTE: This is a classified list of the companies which advertise regularly in SOAP. It will aid you in locating advertisements of raw materials, bulk and private brand products, equipment, packaging materials, etc., in which you are particularly interested. Refer to the Index to Advertisements, on page 132, for page numbers, *"Say you saw it in SOAP."*

ALKALIES

American Cyanamid & Chemicals Corp.
Columbia Alkali Co.
T. G. Cooper & Co.
Dow Chemical Co.
Eastern Industries
Hooker Electrochemical Co.
Innis, Speiden & Co.
Niagara Alkali Co.
H. H. Rosenthal Co.
Solvay Sales Corp.
Jos. Turner & Co.
Warner Chemical Co.
Welch, Holme & Clark Co.

AROMATIC CHEMICALS

American-British Chemical Supplies
Aromatic Products, Inc.
Compagnie Parento
Dodge & Olcott Co.
Dow Chemical Co.
P. R. Dreyer, Inc.
E. I. du Pont de Nemours & Co.
Felton Chemical Co.
Charles Fischbeck & Co.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Magnus, Mabee & Reynard, Inc.
Merck & Co.
Monsanto Chemical Co.
Norda Essential Oil & Chemical Co.
Orbis Products Corp.
Schimmel & Co.
George Silver Import Co.
Solvay Sales Corp.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.

BULK AND PRIVATE BRAND PRODUCTS

An-Fo Manufacturing Co.
Baird & McGuire, Inc.
Chemical Supply Co.
Clifton Chemical Co.
Davies-Young Soap Co.
Eagle Soap Corp.
Federal Varnish Co.
Flori Mothproofing Method
Franklin Research Co.
Fuld Bros.
E. A. Gerlach Co.
Goulard & Olena
Harley Soap Co.
Hull Co.
Koppers Products Co.
Kranich Soap Co.
Palmer Products
Philadelphia Quartz Co.
John Powell & Co.
Geo. A. Schmidt & Co.
Uncle Sam Chemical Co.
T. F. Washburn Co.
White Tar Co.
Windsor Wax Co.

CHEMICALS

American-British Chemical Supplies
American Cyanamid & Chemicals Corp.
Columbia Alkali Co.
T. G. Cooper & Co.
Dow Chemical Co.
E. I. du Pont de Nemours & Co.
Eastern Industries
General Chemical Co.
Grasselli Chemical Co.
Hooker Electrochemical Co.
Industrial Chemical Sales Co.
Innis, Speiden & Co.
Mechling Bros. Chemical Co.
Merck & Co.
Monsanto Chemical Co.
Niagara Alkali Co.
Philadelphia Quartz Co.
H. H. Rosenthal Co.
Solvay Sales Corp.
Standard Silicate Co.
Jos. Turner & Co.
Victor Chemical Works
Warner Chemical Co.
Welch, Holme & Clark Co.

COAL TAR RAW MATERIALS

(Cresylic Acid, Tar Acid Oil, etc.)
American-British Chemical Supplies
Baird & McGuire, Inc.
Barrett Co.
T. G. Cooper & Co.
Innis, Speiden & Co.
Koppers Products Co.
Monsanto Chemical Co.
Reilly Tar & Chemical Co.
White Tar Co.

COLORS

Fezandie & Sperrle
Pylam Products Co.

CONTAINERS and CLOSURES

American Can Co. (Tin Cans, Steel Pails)
Anchor Cap & Closure Corp. (Closures & Bottles)
Continental Can Co. (Tin Cans)
Hinde & Dauch (Corrugated Fibre Products)
Maryland Glass Corp. (Bottles)
National Can Co. (Tin Cans)
Wilson & Bennett Mfg. Co. (Steel Pails and Drums)

DEODORIZING BLOCK HOLDERS

Cin-Made Corp. (Paper)
Clifton Chemical Co.
Eagle Soap Corp.
Fuld Bros.
Palmer Products, Inc.

ESSENTIAL OILS

Aromatic Products, Inc.
Compagnie Parento
Dodge & Olcott Co.
P. R. Dreyer Inc.
Felton Chemical Co.
Charles Fischbeck & Co.
Fritzsche Brothers, Inc.
Leghorn Trading Co.
Magnus, Mabee & Reynard, Inc.
Norda Essential Oil & Chemical Co.
Orbis Products Corp.
Schimmel & Co
George Silver Import Co.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.

(*Continued on page* 130)

PROFESSIONAL DIRECTORY

PEASE LABORATORIES, Inc.

Chemists, Bacteriologists, Sanitarians

39 West 38th Street
New York

Food, Drug and Cosmetic Problems—Compliance with Official Requirements—Meeting New and Anticipated Competitions with Improved and New Products

H. A. SEIL, Ph.D E. B. PUTT, Ph.C., B.Sc.

SEIL, PUTT & RUSBY, INC.

Analytical and Consulting Chemists

Specialists in the Analysis of Pyrethrum Flowers, Derris Root, Barbasco, or Cube Root—Their Concentrates and Finished Preparations

ESSENTIAL OILS SOAP

16 East 34th Street, New York, N. Y.

STILLWELL AND GLADDING, Inc.

Analytical and Consulting Chemists

Members Association of
Consulting Chemists and Chemical Engineers

130 Cedar Street New York City

APPLIED RESEARCH LABORATORIES, Inc.

DAYTON, N. J.

Bacteriology, Pathology, Physiology

Deodorant Coefficients (Packchanian Method)
Disinfectant and Insecticide Tests
Toxicity and Skin Irritation Tests
Bioassays and Other Animal Studies

KILLING
strength of Insecticides
by PEET GRADY METHOD
(Official I. & D. code method) and
PYRETHRINS in PYRETHRUM FLOWERS
(by Gnadinger's Method)
We raised and killed more than 1 million flies in the last 2 years
ILLINOIS CHEMICAL LABORATORIES, INC.
75 E. WACKER DRIVE CHICAGO, ILL.

COST SYSTEMS

Designed and installed for Soap Manufacturers and allied industries. Service in—Cost Anaylsis—Federal Taxation—Audits and Financial Statements.

TWENTY-FIVE YEARS' EXPERIENCE

LOUIS J. MUEHLE & COMPANY

CERTIFIED PUBLIC ACCOUNTANTS

DES MOINES IOWA

CONSULTANTS

offering their services to manufacturers of soaps and sanitary specialties should apprise the industry of their facilities through this professional card department. SOAP reaches 2,200 manufacturers who need help of a professional nature.

SOAPS — DETERGENTS

Analyses *Development*
Consultation *Formulas*

HochstadterLaboratories
INCORPORATED

254 West 31st St. New York City

Entomological Testing Laboratories, Inc.

We offer you a medium for purchasing insecticides on an intelligent basis.

Entomological testing by the Peet-Grady method, and chemical examination of insecticides are available.

114 E. 32nd St. New York, N. Y.

When articles appear or patents are issued which relate to the business of our retainer clients, they are advised about them at once without extra charge. This service is available to others at a moderate fee. You have only to ask to receive details.

Foster D. Snell, Inc.
Chemists-:-Engineers
305 Washington St.,
Brooklyn, N. Y.

Skinner & Sherman, Inc.

246 Stuart Street, Boston, Mass.

Bacteriologists and Chemists

Disinfectants tested for germicidal value or phenol co efficient by any of the recognized methods.

Research—Analyses—Tests

RAW MATERIAL AND EQUIPMENT GUIDE

(*Continued from page* 128)

NOTE: This is a classified list of the companies which advertise regularly in SOAP. It will aid you in locating advertisements of raw materials, bulk and private brand products, equipment, packaging materials, etc., in which you are particularly interested. Refer to the Index to Advertisements, on page 132, for page numbers, *"Say you saw it in SOAP."*

MACHINERY

Battle Creek Wrapping Machine Co. (Packaging Machinery)
Ertel Engineering Corp. (Filters, Mixers, Bottle Fillers)
Anthony J. Fries (Soap Dies)
Houchin Machinery Co. (Soap Machinery)
Huber Machine Co. (Soap Machinery)
International Nickel Co. (Monel Metal)
R. A. Jones & Co. (Automatic Soap Presses and Cartoning Machinery)
Mixing Equipment Co. (Mixers)
Package Machinery Co. (Packaging)
Pneumatic Scale Corp. (Packaging)
Proctor & Schwartz (Dryers)
C. G. Sargent's Sons Corp. (Dryers)
Stokes & Smith Co. (Packing Machinery)

MACHINERY, USED

Consolidated Products Co.
Newman Tallow & Soap Machinery Co.
Stein-Brill Co.

MISCELLANEOUS

American Colloid Co. (Bentonite)
Anchor Cap & Closure Corp. (Metal Caps)
T. G. Cooper & Co. (Waxes)
Dobbins Mfg. Co. (Pails, Mop Wringers, etc.)
General Chemical Co. (Fluorides)
General Naval Stores Co. (Pine Oil-Rosin)
Hercules Powder Co. (Pine Oil and Rosin)
Industrial Chemical Sales Co. (Decol. carbon, Chalk)
Innis, Speiden & Co. (Fumigants and Waxes)
Merck & Co. (Lanolin)
Murray & Nickell Mfg. Co. (Moth Proofing Liquid)
Pylam Products Co. (Lathering Agent)
Rohm & Haas Co. (Insecticide Base)

OILS AND FATS

Balfour, Guthrie & Co.
T. G. Cooper & Co.
Eastern Industries
Independent Mfg. Co.
Industrial Chemical Sales Co.
Leghorn Trading Co.
Michel Export Co.
Murray Oil Products Co.
Newman Tallow & Soap Machinery Co.
Orbis Products Corp. (Stearic Acid)
Wecoline Products Co.
Welch, Holme & Clark Co.

PARADICHLORBENZENE

Dow Chemical Co.
E. I. du Pont de Nemours & Co.
Hooker Electrochemical Co.
Merck & Co.
Monsanto Chemical Co.
Niagara Alkali Co.
H. H. Rosenthal Co.
Solvay Sales Corp.
Jos. Turner & Co.

PERFUMING COMPOUNDS

Aromatic Products, Inc.
Compagnie Parento
Dodge & Olcott Co.
P. R. Dreyer, Inc.
Felton Chemical Corp.
Charles Fischbeck & Co.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Magnus, Mabee & Reynard, Inc.
Norda Essential Oil & Chemical Co.
Orbis Products Corp.
Schimmel & Co.
George Silver Import Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.

PETROLEUM PRODUCTS

Atlantic Refining Co.
O'Connor & Kremp
Sherwood Petroleum Co.
L. Sonneborn Sons.

PYRETHRUM AND DERRIS PRODUCTS

Insect Flowers and Powder, Pyrenthrum Extract, Derris Products

S. B. Penick & Co.
R. J. Prentiss & Co.
McCormick & Co.
McLaughlin, Gormley, King Co.
John Powell & Co.
H. H. Rosenthal Co.
Sherwood Petroleum Co.

SOAP DISPENSERS

Clifton Chemical Co.
Eagle Soap Corp.
Fuld Bros.
Palmer Products

SODIUM SILICATE

General Chemical Co.
Grasselli Chemical Co.
Mechling Bros. Chemical Co.
Philadelphia Quartz Co.
Standard Silicate Co.

SPRAYERS

Breuer Electric Mfg. Co.
Dobbins Mfg. Co.
Fumeral Co.
Getz Exterminators
Hudson Mfg. Co.
Lowell Sprayer Co.

TRI SODIUM PHOSPHATE

General Chemical Co.
Grasselli Chemical Co.
Monsanto Chemical Works
H. H. Rosenthal Co.
Victor Chemical Works
Warner Chemical Co.

We announce development of new type soap colors

PYLAKLORS

They have good fastness to alkali, light, tin, ageing.

The following shades are already available:

Bright Green	Dark Brown
Olive Green	Palm Green
Yellow	Golden Brown
True Blue	Violet

It will pay you to send for testing samples.

PYLAM PRODUCTS CO., INC.

Manufacturing Chemists, Importers, Exporters

799 Greenwich St. New York City

Cable Address: "Pylamco"

PATENT APPLIED FOR

A BOTTLE CAPPED *with Every Motion* THE ERTEL WAY

• A hand capper that involves no wrist motion . . . no fatigue . . . no operating cost.

Zip! Zip! Zip! And bottle after bottle goes on its way. Every time the handle comes down, another bottle is capped . . . securely . . . *uniformly* tight.

When the consumer opens the bottle, he doesn't need a pair of pliers to do it! The capper is geared to eliminate leakers and yet to make bottle opening easy. Operators require no experience. These cappers are fool-proof.

Each capper comes complete with one chuck. Send sample of cap with order. Various chucks to fit different size caps are available and easily interchanged. Write for yours promptly while you have it in mind.

ERTEL ENGINEERING CORPORATION

Dept. C, 120 E. 16th St., New York, N. Y.

ALSO MANUFACTURERS OF Disk Filters, Cloth Filters, Neutral Asbestos Filter Sheets, Portable Mixers, and Portable Vacuum and Semi-Automatic Multiple Spout Vacuum Bottle Fillers.

Classified Advertising

Brings excellent results at a minimum cost. Rates are only 10c per word with a minimum charge of $2 per issue (position wanted advertisements accepted at half rates). Whether you have some surplus equipment or material for sale, have a position open or are looking for a new connection, etc., use space in the Classified Section of *Soap.* It will place you in touch with the entire soap and sanitary products industry.

★ ★ ★ ★

WHITE COCONUT OIL

AND

PALM OIL FATTY ACIDS

ALSO COMPLETE LINE OF VEGETABLE AND ANIMAL OIL FATTY ACIDS

WECOLINE PRODUCTS, Inc.

15 EAST 26th ST. NEW YORK

INDEX TO ADVERTISERS

For product classification see pages 128 *and* 130

*For further details see announcement in 1936 SOAP BLUE BOOK

*American-British Chemical Supplies 60
American Can Co. ..... December
American Colloid Co. ..... February
Anchor Cap & Closure Corp. 10, 11
American Cyanamid & Chemicals Corp. ..... February
Applied Research Laboratories 129
*Aromatic Products, Inc. 44
Atlantic Refining Co. 112

*Baird & McGuire, Inc. 90
Balfour, Guthrie & Co., Ltd. ..... February
*Barrett Co. 108
Books 54
*Breuer Electric Mfg. Co. 114

Chemical Supply Co. 106
*Clifton Chemical Co. 96
*Columbia Alkali Co. 9
Compagnie Parento 127
*Consolidated Products Co. 123
*Continental Can Co. 16, 17
T. G. Cooper & Co. 126

*Davies-Young Soap Co. 12
Dobbins Mfg. Co. 116
Dodge & Olcott Co. 14
*Dow Chemical Co. 15
P. R. Dreyer, Inc. 104
*E. I. Du Pont de Nemours Co. 4

*Eagle Soap Corp. 86
Eastern Industries 52
*Electro Bleaching Gas Co. 100
Entomological Testing Laboratories 129
*Ertel Engineering Corp. 131

*Federal Varnish Co. 112
*Felton Chemical Co. 7, 77
Fezandie & Sperrle 124
Charles Fischbeck & Co. 52
Flori Mothproofing Method 118
Franklin Research Co. 124
Anthony J. Fries ..... February
Fritzsche Brothers, Inc. 8
*Fuld Brothers ..... Second Cover
Fumeral Co. 126

*General Chemical Co. 6
General Naval Stores Co. 98
E. A. Gerlach Co. 127
*Getz Exterminators ..... December
*Givaudan-Delawanna, Inc. ..... Third Cover, 88
Goulard & Olena ..... November
*Grasselli Chemical Co. 36

Harley Soap Co. 120
Hercules Powder Co. 74
Hinde & Dauch 134
Hochstadter Laboratories 129
*Hooker Electrochemical Co. ..... February
*Houchin Machinery Co. 68, 120
*Huber Machine Co. 124
*Hudson Mfg. Co. 85
The Hull Co. 133

Illinois Chemical Labs. 129
Independent Mfg. Co. 126
Industrial Chemical Sales Co. 62
*Innis, Speiden & Co. 54
International Nickel Co. 70

Johnson Automatic Sealer Co. ..... November
R. A. Jones & Co. 20

Koppers Products Co. 114
Kranich Soap Co. 56

*Leghorn Trading Co. ..... February
Lowell Sprayer Co. ..... February

Magnus, Mabee & Reynard, Inc. 83
Manufacturing Chemist ..... January
Maryland Glass Corp. ..... February
*McCormick & Co. ..... Back Cover
McLaughlin Gormley King Co. 78, 79
Mechling Bros. Chemical Co. 126
Merck & Co. 46
Michel Export Co. 133
Mixing Equipment Co. 127
Monsanto Chemical Co. 3
Louis J. Muehle & Co. 129
Murray Oil Prods. Co. 133

National Can Co. 89
*Newman Tallow & Soap Machinery Co. 122
*Niagara Alkali Co. 100
Norda Essential Oil & Chemical Co. 84

O'Connor & Kremp Co. 116
*Orbis Products Corp. ..... February

Package Machinery Co. 42
Palmer Products 124
*Pease Laboratories 129
*S. B. Penick & Co. 82
Philadelphia Quartz Co. 18
Pneumatic Scale Corp. 38
*John Powell & Co. 75
*R. J. Prentiss & Co. 76
*Proctor & Schwartz, Inc. 72
*Pylam Products Co. 131

*Reilly Tar & Chemical Co. 106
*Rohm & Haas Co. 48, 102
Roney Plaza Hotel 110
H. H. Rosenthal Co. 125

*C. G. Sargent's Sons Corp. ..... February
Schimmel & Co., Inc. 50
George A. Schmidt & Co. 133
Seil, Putt & Rusby 129
Sherwood Petroleum Co. 108
George Silver Import Co. 13
*Skinner & Sherman 129
*Foster D. Snell 129
Soap Perfumery & Cosmetics Trade Review 72
*Solvay Sales Corp. 56
*L. Sonneborn Sons 87
Standard Silicate Co. ..... February
*Stein-Brill Corp. 123
Stillwell & Gladding 129
*Stokes & Smith Co. ..... January

A. M. Todd Co. ..... February
*Jos. Turner & Co. 58

Uncle Sam Chemical Co. 120
*Ungerer & Co. ..... Front Cover

*Van Ameringen-Haebler, Inc. 19
Victor Chemical Works 58

*Warner Chemical Co. 40
T. F. Washburn Co. 118
Wecoline Products Co. 131
Welch, Holme & Clarke Co. 50
White Tar Co. 118
Wilson & Bennett Mfg. Co. 60
Windsor Wax Co. 125

Every effort is made to keep this index free of errors, but no responsibility is assumed for any omission.

Natural Higher

FATTY ALCOHOLS

Cetyl-Oleic-Stearic-Lanolic and Cholesterol Alcohols

WHITE OLEIC ACID

Of superior quality and low titer

Synthetic Soap Powders

For scouring, dye leveling and household purposes

For samples and quotations write to

MICHEL EXPORT CO., Inc.

95 BROAD STREET NEW YORK, N. Y.

SHAVING CREAM

TOOTH PASTE

In Bulk Or

Under Your Own Name in our special tubes and cartons. These are lithographed with a blank space for *YOUR* label. In any quantity from one gross up.

GEO. A. SCHMIDT CO.

Manufacturers of SOAPS of Every Description

236-238 West North Avenue Chicago.

HULL POWDERED METAL POLISH

Always fresh

Easy to handle

Absolutely non-inflammable

THE HULL COMPANY

305 Washington Street

Brooklyn, N. Y.

Spot or Futures

TEASEED OIL

MURRAY OIL PRODUCTS CO.

INCORPORATED

21 WEST ST., NEW YORK

SILENT SALESMAN *Sells*

★ **To win the dealer's favor, a merchandise display stand must fit in with the other fixtures of the store; it must attract attention; above all, it must be substantial. Hinde & Dauch "Selmor" Display Stands, like H & D Shipping Boxes, are constructed of the toughest and strongest fibreboard available. Thoroughly modern facilities guarantee prompt service. If your products lend themselves to retail display, let us tell you the "Selmor Sales" story. Write The Hinde & Dauch Paper Company, 215 Decatur Street, Sandusky, Ohio.** « « «

HINDE & DAUCH

★ *Corrugated Shipping Boxes*
Selmor Display Stands

PLANTS IN PRINCIPAL CITIES

Here and There

THIS is the season of the year when business men really get good and sore about taxes, heavy government expenses, politicians, etc. It is the season when Mr. Business Man, himself in person, figures out his income tax and steps up to the cashier and pays. To talk about government expenses abstractly here and there throughout the year is one thing, but to have them demonstrated by hitting one directly in the pocketbook is altogether another. This is always the season when we all insist in unison that something *must* be done to cut taxes.

♦

Dozens and dozens of inquiries come to us every month from people and firms which are not subscribers to SOAP. These cover everything from the price of soap in Siam on Christmas Day, 1896, down to the use of horse feathers in making shaving cream—most of them of rather narrow interest. Sorry as it makes us feel, we must restrict our information service to paid subscribers,—we must draw the line somewhere, or our entire staff would do little else but answer inquiries, every one of which requires considerable time to check up. Understand, we feel quite flattered that people write to us for information,—and we want to help where we can,—but it is physically impossible. That is why we must limit the service.

♦

And while we are on the subject of information service,—have you seen the new 1936 Soap Blue Book and Catalog? If your subscription is paid up, you have,—if not, you did not receive a copy. The new Blue Book is out,—over 200 pages jammed full of valuable data on raw materials, sources of supply, specifications, reference tables, official testing methods, how to put out a new product, etc. Each subscriber to SOAP receives one copy of the Blue Book free. If you have not received yours as yet, check up and see if your subscription has been paid.